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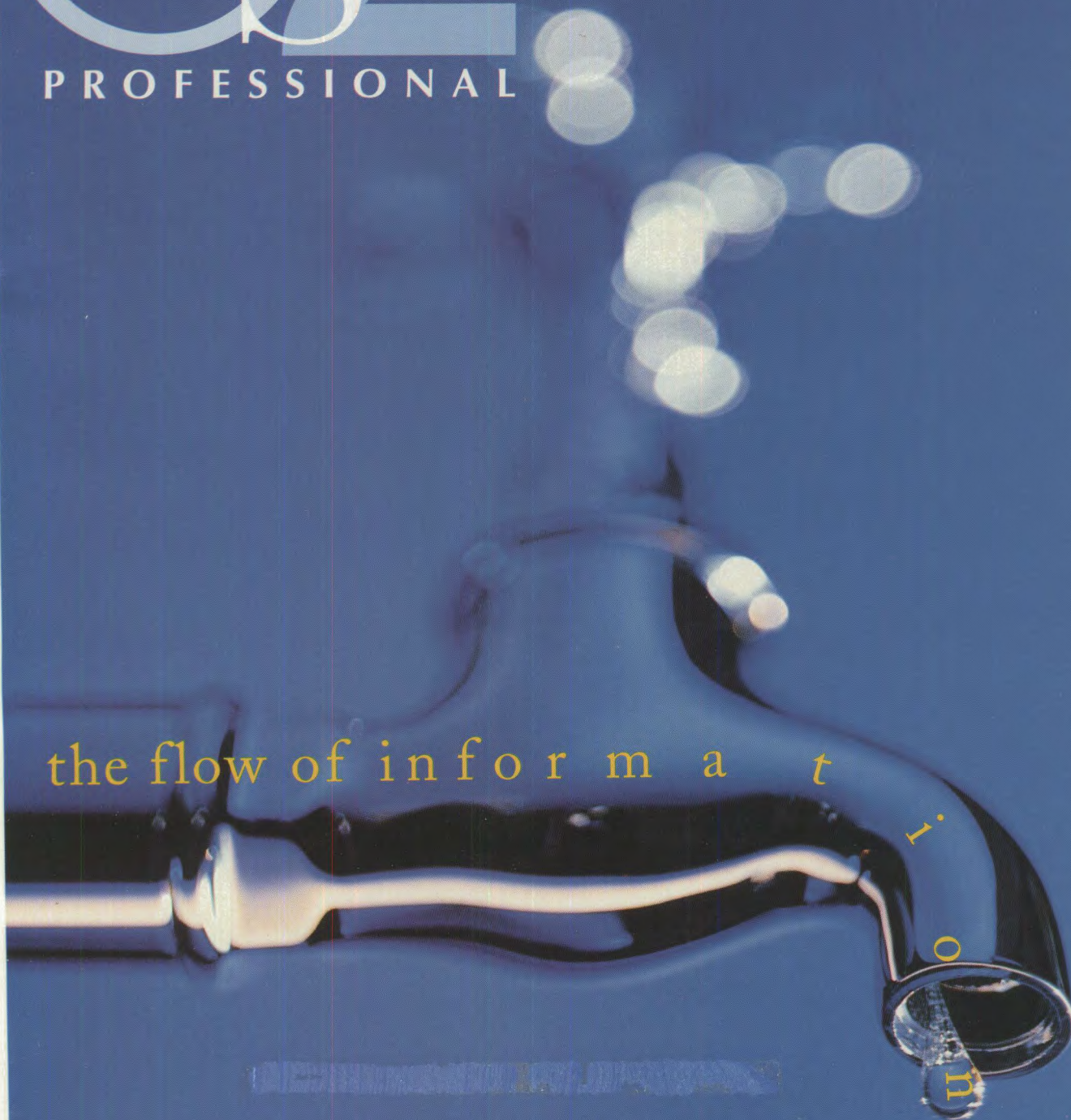
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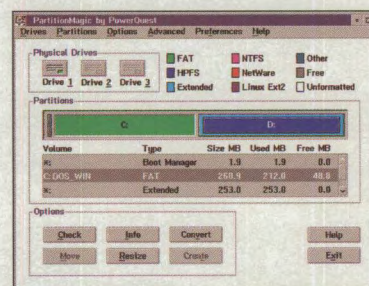
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With IBM's voice recognition technology, Jerry Pournelle is guaranteed a captive audience.



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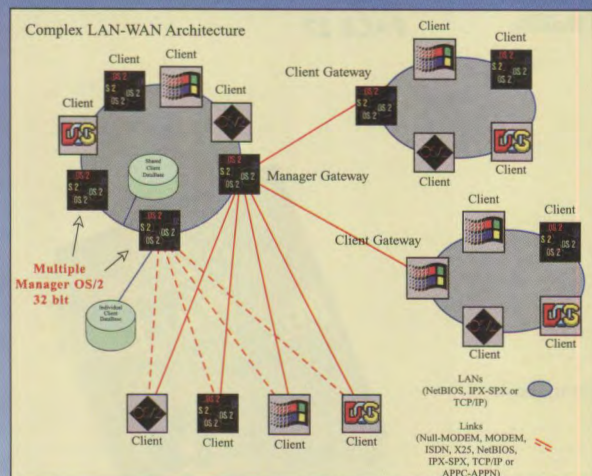
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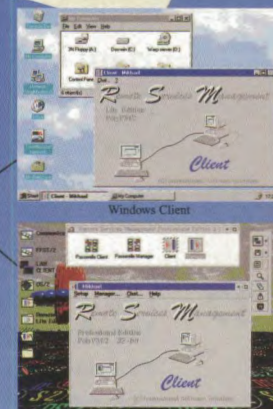


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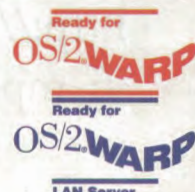
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Right Now

BY EDWIN BLACK

A few years from now, when the world has been duped into standardizing on NT and some Bill Gateway beyond that, when Win 95 will be viewed as a mere hyped-up stepping stone, when Warp will be just a memory that several million people like you and I will perchance keep alive on desktops and in networks or perhaps on that special machine at home; I promise, I guarantee that when they write and speak about OS/2, they will always remember the individuals that made it special.

We will be remembered as pioneers who had the vision and the guts to put ourselves on the line in the face of insurmountable stupidity by IBM and insurmountable cunning by Microsoft. Yes. Someday all corporate Microsoft users will have what we have today—a superior OS because of its many Mercurial features: drag and drop, crash resistant connectivity, speed, resource-lean multithreaded multitasking and backward compatibility. Yes. Someday all of Microsoft's SOHO and personal users will have these same benefits changing their lives and the way they connect to the world from a single powerful workstation.

But we in the OS/2 Community had it first in 1992 and 1993, not at the turn of the next century. We had OS/2 Warp up and running when the alternative from Microsoft was an unfinished illusion, when clashing computing realms had an opportunity to conjoin their technological needs and gains in a more orderly fashion that would have been less disruptive of legacy applications such as DOS and Windows. Our OS was inclusive, not exclusive. It was structured for connectivity, not disenfranchisement. It was a way to bring the many into the elite advances we had embraced as a vanguard.

You and I and millions of our colleagues had the right product at that magical moment when the world was at a market crossroads. Desktop OS technology had reached its albedo. But only we could see it and even IBM was blinded by the brightness of the opportunity. We can now admit it. The world did

not join our movement.

Why go into the details? Is there any informed user who does not know why? Surely not among our loyal users, whom we gladly count among the most sophisticated users anywhere. And I'm glad we were there to make a difference. Indeed, *OS/2 Professional* has made a career of uncovering incompetence and the neglect even as we espoused the triumph of IBM's technologic accomplishment. From the OS/2 Professional Interchange, where 2,000 people danced in the desert at Palm Springs to celebrate, to Bloodhound, when we published the single most

provocative cover in the history of computer magazines, to the innovative OS/2 Express—designed to fill a gap and ultimately help thousands of corporate users adopt and exploit OS/2. For our efforts, we won the confidence of corporate OS/2 America, an award from the Computer Press Association as the best new magazine of the year, and a *Folio: Magazine* circulation innovation award.

And you never gave up. No matter how Big Blue fumbled and stumbled, no matter what the setback, no matter what the missed opportunity, you—the OS/2 loyalists—would not relinquish the prospect that another horizon would clear beyond

the clouds. Please take a moment after reading this column to congratulate yourself for standing up for an ideal and forcing the rest of the world to do it right—if only by your example. It was you who wandered through the desert of marketing incompetence, broken promises, false prophecies and profound adversity to lead the way.

That's right, you lost in the numbers. But you won the ultimate victory. The world will eventually do it just the way you sought. As such, your operating system OS/2 Warp will not cross over into the land of gee whiz success. But you will be able to stand on the mountain and watch the others flock across knowing that you led the way. And one day when someone asks why you stood against the storm and did it right, you will answer the same way I do: It seemed like the right thing to do at the time. ♦



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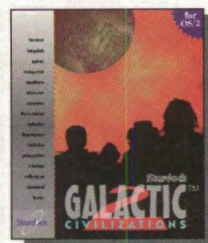
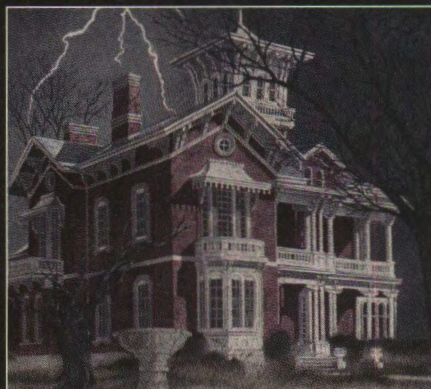
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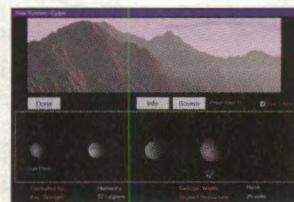


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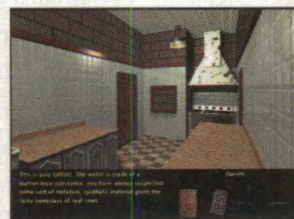
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Comments, criticisms, and observations

A tip to avoid crashing

I appreciated the article on crash proofing Windows [I.S. Notebook, November/December 1995], because I have found that all too often Windows can bring even OS/2 to its knees.

However, I have found one caveat for the recommendation that DOS files be set to 255. After setting DOS_FILES=255, I noticed that every time I started a DOS or WINOS/2 session, my PC would beep and flash an error message. It seems the Netware Requester that ships with Warp Connect reserves some file handles (I haven't been able to find out exactly how many) for itself. If the total of DOS_Files plus what the requester takes is greater than 254, you get an error message. Setting DOS_FILES to 200 got rid of the error message.

I never had any problems running any of my applications due to this—I just got tired of the beeping.

Steve Corwin

Stamford, Connecticut

A cry for help

Windows 3.1 was a delight. It encouraged this 60 year-old retiree to make the transition from Wordstar 4.0 to WinWord 6.0 and opened the pleasures of working with other applications such as Access, Pagemaker, Quicken, QuickBooks and others.

It has not been a bed of roses, though. The general protection fault messages and the lack of resource messages, despite a 1GB hard disk and 32 MB or ram, came like clockwork. In spite of a multi-tiered directory and sub-directories, I still found myself opening a file to know what the cryptic eight character file name stood for.

Upon happening on an old issue of *OS/2 Professional*, I learned about the features of OS/2: separate windows which provide protection for the sessions that did not crash when one does; the breaching of the 650 KB memory limit and utilization of higher memory areas; and the 32 MB VDM. There are many others that I really cannot under-

stand, but I became a believer anyway.

All I need is an operating system that will let me work with long file names, no general protection fault messages and continue humming in the background, not calling attention to itself. Am I asking too much?

Ruben G. Asedillo

Metro Manila, Philippines

You can keep your goodies

I was impressed by Myron Sloboda's review of Globalink's PTP [Hands On, September 1995] as I have been looking for a decent English/Spanish translation program. I immediately placed an order with OS/2 Express and received my copy this afternoon. Upon opening the package, I noticed an additional "goodie" in with the diskettes, the dreaded Printer Doggle security key. Needless to say, I immediately called OS/2 Express and got an RMA number.

I don't care how good the program is, I will not use software with weird key diskettes or hardware keys. I have purchased all of the software that I am currently using (I even register shareware if I plan on using it), and resent the implication that I am dishonest. Had the fact been mentioned in the review, I never would have purchased the software.

Mike Scott

via the Internet

Putting out the fire

I'm a member of the Long Island Users Group (LIUG), and Managing Editor of their newsletter. The media's consensus on OS/2 is that IBM is not going to support it, that it's a niche operating system for a small minority of users.

The LIUG was quite concerned about this so Thom Larsen, vice president and program director, invited John W. Thompson (General Manager of PSP) to the December meeting to speak regarding IBM's position on OS/2. Thompson attended and spoke of IBM's unending commitment to OS/2. He talked about the next generation of Warp (code named Merlin) and about

the very positive feedback from Warp Server beta. We expressed concern over the longevity of Warp to Thompson. He replied, "My career is riding on it."

With that kind of dedication we can be confident that OS/2 will be supported and not abandoned. Thompson took users' questions for over an hour, and by the time he left that night I know that everybody felt better about the future of OS/2. Thom Larsen summed up Thompson's visit with, "He came, he listened, he conquered."

Marc R. Slifkin

Little Neck, New York

Security and support for Warp

Just another example that applications sell operating systems. Recently, OS/2 Warp went head to head with Windows NT for the Navy PC-Lan+ contract. Since file-level security was required, our SpotLight for OS/2 was selected to fill OS/2's security void. The result was a major contract and a big boost for OS/2 Warp. As an ISV, we really see IBM improving their support, which we now consider outstanding.

Bob Janacek

*Technical Director, Safety Net, Inc.
via the Internet*

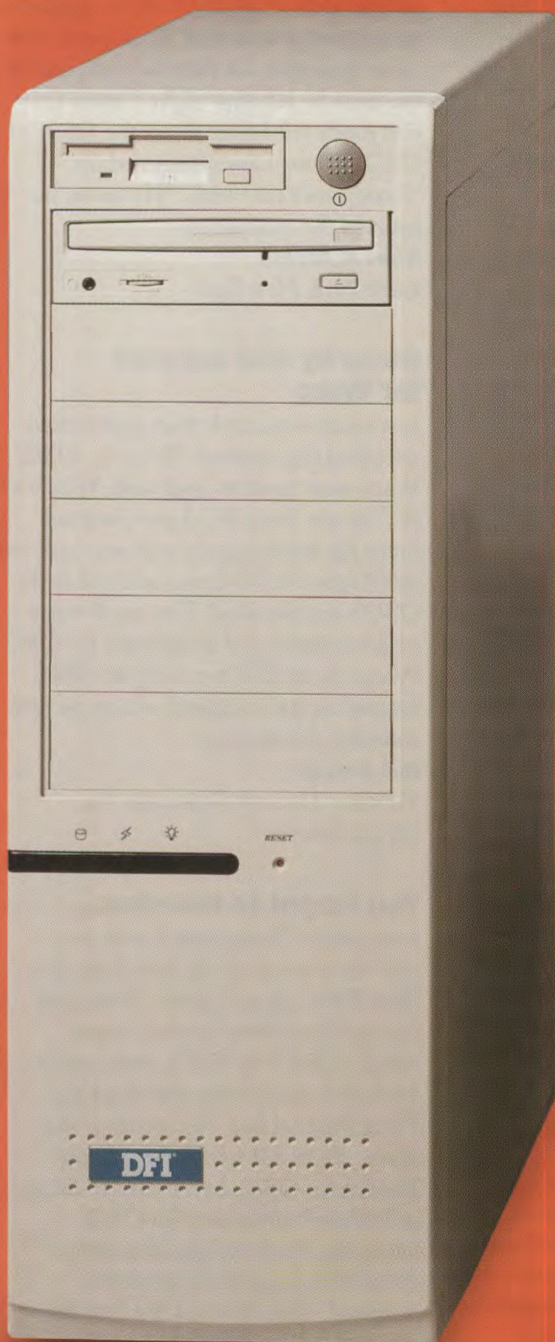
You forgot to mention...

I was rather disappointed with your anti-virus article in the Nov/Dec issue (Dot EXE, *Data Defense*). First, only two products were covered, one of which, CPAV for OS/2, came out in 1993. It is part of the now dead PC Tools product line. No mention was made of Dr. Solomon's Anti Virus Toolkit for OS/2, McAfee's OS2Scan or F-Prot Professional for OS/2. Secondly, there was no discussion of the effectiveness of the products reviewed. Ease of use is fine but the true test is how effective the program is at stopping a virus.

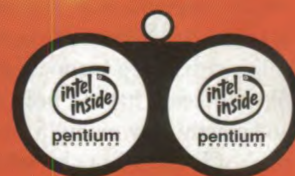
Patrick West

*President, PC Care
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BYTES & PIECES

News and trivialities, important and obscure

Government safety

At least 400,000 government users requiring C2-level security soon will be running Stoplight for OS/2—a package chosen over Microsoft's Windows NT in a \$332 million PC-LAN+ contract awarded to EDS Government Products and Services. The contract was awarded and is managed by the U.S. Navy.

Safetynet Inc., maker of Stoplight for OS/2, is one of many vendors subcontracting with EDS, said Bob Janacek, Safetynet's vice president of marketing. EDS had originally planned to bid for the contract using Windows NT, but decided against it for financial and compatibility reasons, among others, Janacek said. "EDS knew if it went with NT it would lose (the bid)," Janacek said. So EDS instead set out to determine which product would offer the best C2 security, and settled on Stoplight for OS/2. "In this case the C2 security was the overriding factor, and it also could run a broader variety of programs they needed—more so than NT," Janacek said.

Accordingly, every user identified as needing C2-level security will be required to use Stoplight for OS/2, bundled with IBM's OS/2. Janacek said the other 600,000 users will be free to choose their hardware and software configurations, but that Safetynet hopes to be able to claim some of them as customers, too.

Stoplight for OS/2 is a file and directory-level security provider. Unlike most OS/2 security systems, Janacek said, Stoplight's protection extends beyond the Workplace Shell, making it far more difficult to bypass. Stoplight for OS/2 (with a Team OS/2 logo) can be downloaded from Safetynet's home page at <http://www.safe.net/safety/> or <ftp://ftp.safe.net/pub/safetynet/>.

Athena: abiento?

At presstime in early January, word on the street was that Athena, maker of Mesa spreadsheets, was closing shop. CEO David Kahan posted this rebuttal on the Internet:

"Rumors of our demise are greatly exaggerated. Like many software companies, we are in active discussions with potential partners about a whole range of relationships. And in this volatile industry, there is certainly no guarantee of longevity, particularly longevity as an independent company [ask the makers of 1-2-3 or Quattro Pro about that, for example]. If and when we have something definite to announce, we will do so. In the meantime, as you surmise, we are hard at work at improving our software."

Reached at his office for further comment, Kahan said, "We are definitely in active negotiations. We don't know [yet] what the people we're negotiating with will want or what form that will take. We've been asked if we'll be around for the long haul. Well, it's life in the fast lane. What independent company can guarantee that? We can't guarantee that."

In the meantime, however, Kahan said Athena was indeed still shipping Mesa, providing technical support, dealing with resellers and answering calls for upgrades. "We try to be honest with people," he said. "We are still in business. People have been calling us and saying, 'oh, we thought you closed.' We're not closed! Everyone else may be [in the Blizzard of '96], but we're open."

Java infusion

IBM has been "deluged" with requests from big customers—including many banks—to participate in its Java beta program, soon to begin for OS/2 and AIX platforms, said Ian Brackenbury, senior technical advisor in IBM's Hursley, England Software Development Lab.

Java, the much-touted object-oriented programming language from Sun Microsystems, operates independently of operating systems and microprocessors. Its programs, called applets, can be transmitted over a network and run on multiple clients. Java programs, Brackenbury said, will allow Web publishers to transcend some of HTML's limitations, with, for example, animation or code entries that HTML can't by itself

incorporate.

"The existing HTML spec allows for a description of a relatively static display," Brackenbury said. "The ability of an entry form to have intelligence is very limited." In contrast, he said, Java's animation and multimedia capabilities will bring Web pages to life. "People reading it will find it indispensable," he said. "They won't be able to get at a lot of information they want without the Java applets. It's like going from monochrome to color."

Even so, why all the fuss over a programming language that, at presstime, hadn't even debuted, and that has been reported to run slower than compiled C?

"Something like Java makes it possible to write code once, compile it once and run it," Brackenbury said. "That's been a computer programmer's dream. It irons out the differences between hardware. (And) it has struck a chord with people who want to use it in terms of an appliance—who associate it with an easy way to get information." Brackenbury said platforms are adopting Java rapidly, and that IBM and other companies will improve its speed.

IBM initially will port Java, along with Sun's Hot Java Browser, to OS/2 and AIX over the World Wide Web for the first registered beta program. Beta for Windows 3.1 will take longer, Brackenbury said. Later in the year IBM will incorporate Java into its Web browsers and servers (MVS and OS/400 server platforms), Lotus Notes, and OS/2, AIX and Windows 3.1 operating systems. It also plans to incorporate Java runtime in all its mainstream development tools.

Duped and dumped

In response to a disgruntled reader, we called Globalink about its Power Translator Plus for OS/2, which we reviewed in September's *Hands On*. Our review said the product contained no security devices, but the reader had received one—commonly known as a dongle—in his copy.

continued on page 13

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Get Over It Already

BY BRADLEY D. KLIEWER

This morning I awoke to what seemed like a bad dream. The news story on public radio was about oral arguments before the Supreme Court regarding the Borland v. Lotus case: allegations by Lotus (now part of IBM) that Borland's Quattro Pro (now a Novell product) violates Lotus 1-2-3 copyrights by mimicking the look and feel of the menu system.

Justice moves slowly—too slowly for today's fast-paced technology issues. Both programs have moved from market leaders to also rans within the last few years. Legal issues aside, the Lotus position—that the menu system is a creative expression covered by copyright—strikes me as just one example of petty bickering that slows the advancing state of the art.

The menu system is a tool that comprises only a minor fraction of the overwhelming work—the program itself. Imagine the market havoc that would ensue if books were to copyright properties such as the placement, order and format of page numbers, the side (left or right) of the book that was bound, or the genre and “feel” of the book. A consistent interface aids the user and sells more software. The copyright should apply to the actual code—may the fastest and most reliable win.

The bickering and loss of productivity is not limited to the legal arena. Witness the conflict between Microsoft Windows and IBM OS/2. What should have been a healthy competition bears all of the signs of a bitter grudge match. The resulting pre-announcements, back-peddling and over-hyped features have exacted a heavy toll on the 32-bit world. Consider the “what if” possibilities. If IBM had not insulted Microsoft. If Microsoft had not characterized IBM's efforts to run Windows apps within OS/2 as “not a reasonable thing to attempt.” If Microsoft had released native OS/2 applications when IBM's sales reached a million. If Microsoft and IBM had kept APIs generally compatible between OS/2 and NT and let the market decide which was a faster and more efficient architecture. If IBM had recognized and

lauded Microsoft's superior knowledge and ability to mass-market ... the list goes on.

If there had been the merest hint of respect and begrudging cooperation between these two giants, we would probably have a much healthier 32-bit market today. Instead, the two corporate powerhouses—OS/2 and NT—are inhibiting each other's progress by offering features worthy of comparison shopping. The customer must weigh very different features sets (such as security versus an object-oriented model) against the selection of native

software—an area where both would be served by broader selection. Either platform is a worthy successor to the DOS and Windows market.

Instead, Microsoft delivered the Edsel of computerdom. With unparalleled hype and fanfare, Windows 95 dominated the scene. And in a flash-in-the-pan performance, sales soared (though not nearly as high as expected), then fizzled. Microsoft wasted enormous sums of money on the Windows 95 release—much more than can be justified by mere marketing and economic concerns. It looks for all the world like Microsoft was out to prove a

point to IBM. Meanwhile IBM continues to blunder its way through the 32-bit world. Stockholders of both corporations should be incensed—both have so much more to offer. Microsoft has better technology than Windows 95 and IBM had (and may still have) the best direct sales force in the business.

Third party vendors pay the price, too. Corel recently announced that the demand for Windows 95 applications fell short of expectations. What can we look forward to, as application consumers, when a major player finds market rejection in the 32-bit world? OS/2 partisans already know that 32-bit computing in and of itself is not enough. As we've noted several times in the past, 32-bit applications are often slower on 386, 486 and Pentium processors, which were optimized for 16-bit computing. This will not change until widespread deployment of the Pentium



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THE WIZARD OF OS/2

Pro, which will boost performance of OS/2 and NT, but hurt performance on Windows 95, which still relies on too much core 16-bit code. Moreover, current Windows programmers must completely overhaul their current applications to truly take advantage of multithreading and object-orient features. Not only must the programmers learn where multithreading helps and where it hurts, but face the inevitable burden of debugging completely revised code—code that provided a stable base for years on a 16-bit, single-threaded platform.

Thirty-two bits is a necessary step, but it's no magic bullet. It has taken three years for the OS/2 applications to mature. The Windows 95 growth curve may be slightly faster (vendors will surely learn from the history of OS/2), but it will take time. In the meantime, the core productivity apps in OS/2 will suffer. Between the three years to build an OS/2 base and another two for truly optimized Windows 95 and NT applications you have a 32-bit world that has been five years in the making. In a healthy competitive environment, it should have taken no more than two. Then add a few more years for object-oriented apps. ♦

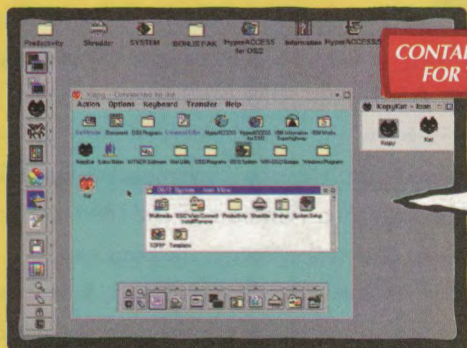
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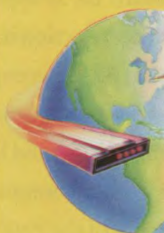


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BYTES & PIECES

continued from page 9

Globalink's sales staff seemed confused, saying they had phased out security devices two years ago. They had—for Macintosh, DOS and Windows copies, the technical support manager told us. Then the kicker: Globalink had cut OS/2 from its product line right after Warp debuted due to lack of demand, he said, and thus the OS/2 copies were old.

This news greatly surprised our reviewer Myron Sloboda. Not only had company reps promised the dongles had been removed from all OS/2 product, he said, but they also had talked up forthcoming versions, even giving him beta copy. Never, he said, had OS/2 Product Manager Tom Foster indicated he was reviewing a dead product. When we called in late September, Foster's name was still listed in the company directory, but he no longer worked there.

Elizabeth Wilson, administrative

assistant in North American Sales, confirmed that sometime around late August or September—just as our review appeared—Globalink had destroyed its remaining OS/2 product.

Sounding a bit chagrined, Wilson said, "now we have a lot of people calling for it."

Small success

In the midst of a turbulent OS/2 market, at least one reseller reports a heady steadiness.

Kiyo Design, a small OS/2-only Mom and Pop shop in Annapolis, Maryland, has only been open since mid-October. Nevertheless, Kiyo Design's sales volumes are increasing 10 to 20 percent per week, Stardock Systems has started mentioning the store, a Web site is planned for February and customers keep coming back, said technical consultant Cory Hamasaki. Hamasaki owns the store along with his

wife, Nancy Hoyt, who serves as president.

"We're meeting expenses now, and in another three to four months we hope to turn a profit," said Hamasaki. "We're a little ahead of where I expected to be right now. We opened with about 35 titles and now have a little over 60; I'd like to get up to about 100 and stay there."

Hamasaki said the store's small, core customer base typically drives an hour or more round-trip to visit the store, located equal distance from Washington DC and Baltimore. When they visit, "they are frankly gleeful," he said. "Their first reaction is generally: 'I've never seen this much OS/2 software in one place before.'" Hamasaki said the holidays and snowstorms have slowed business in recent weeks, but he expects Kiyo Design to do well in '96. The store is located at 11 Annapolis St. and is open Tuesday-Sunday. You can reach the store at (410) 280-1942. ♦

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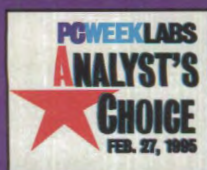


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Special Report by Alan S. Kay



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talk

t h e f l o w o f

i n f o r m a t i o n

for a dying operating system, OS/2 certainly is generating a lot of active discussion and support among developers of communications software. Pete Norloff, for example, runs a popular OS/2 shareware bulletin board in Fairfax, Virginia. His 28 nodes are constantly busy as users dial in.

Terry Goldsworthy is president of Intelligent Environments, a company in Tewksbury, Massachusetts, that sells high end application development tool suites used by corporate sites to build internal applications involving data communications with mainframes. Norloff and Goldsworthy work in very different arenas, but both share a commitment to a key strategic tool that makes what they do easier: the communications and connectivity features of OS/2 Warp. "With OS/2," says Goldsworthy, "all the pieces are in place. OS/2 is more robust than other operating systems. And its background multitasking delivers better response time to large corporate end users."

Norloff puts it just a bit differently: "I could be doing the same thing with a roomful of networked XT's and a DOS package. But it wouldn't be as reliable as it is running OS/2 on a single Pentium box."

View Through a Porthole

The porthole through which a PC's asynchronous communications pass—the serial port—is a rapidly aging technology. So is the voice-grade telephone line that's plugged into most of our modems. Both were designed to support the analog model of telephone communications—a model that is rapidly butting up against its theoretical maximum speed. And the faster these asynchronous communications go, the more they're susceptible to signal degradation and data losses. Nonetheless, that porthole still frames many computer users' view of the world. The serial port is the desktop computer's connection to the Internet, to other distant computer users, to banks, securities firms, corporate databases, information services and opponents in group games.

All this occurs using technology originally developed to allow Teletype machines to send cablegrams—technology that we're stuck with for a while yet. Running mission-critical communications in this environment is one of the best ways to stress-test the system's components. The communications engine must be robust; a dropped bit here or there will make a huge difference. The communications process should run flawlessly in the background, allowing you to work at other tasks. The various components of a communications application should operate independently of each other, allowing you to check your address book while you're dialing a number while another data download session is running in the background.

test

SPECIAL REPORT

Marty Cawthon has applied these yardsticks to measure the worth of every common desktop OS as a communications platform. Cawthon is president of the Dearborn, Michigan-based ChipChat Technology Group, which specializes in communications software, including the ChipChat Wireless Communicator. "Some are good, some not good. For communications while you're performing other tasks, Windows 3.1 is not good. Windows 95 is not good. There are, of course, the different versions of UNIX; it's a robust OS and a good platform. Windows NT for multitasking communications is also a good platform."

His pick? You guessed it. "We're in OS/2 because it presents itself as the best platform to conduct most business today. It allows you very good connectivity, particularly on-line to the Internet; there are a lot of 32-bit OS/2 applications; it's backwardly compatible with Windows and DOS applications and it has the best user interface out there. It beats NT with respect to backward compatibility and interface, requires less hard drive and memory, and it's backed by IBM, a giant, strong computer company."

Admittedly, there are many who would quarrel with that last statement. IBM's cool foreign language ads to the contrary notwithstanding, the marketing of OS/2 has been a shambles, confused as to target audience and message. This fact is frustrating to IBMers who know what they've produced. "It's so ironic that we've had so much trouble with marketing," observes one IBMer, "always looking for the killer app. In fact, we found it a year ago: the killer app is the Internet. We included it in the BonusPak, free of charge. "Most people still don't know what comes with the product. It really aggravates me sometimes—if Microsoft ever thought they'd found the killer app, you can bet the whole world will know about it."

Designed From the Ground Up

"When it comes to communications," says Cawthon, "you can split desktop operating systems into two broad groups: OS/2, UNIX and Windows NT; and Windows 3.1 and 95. For communications, you should be looking at the former group."

That group consists of mature operating systems designed for enterprise use. Of the three, however, UNIX remains a minefield of incompatible versions and NT offers little in the way of backward compatibility while demanding a great deal in the way of resources. "I've done a lot of Windows programming," says Steven Gutz, a Pembroke, Ontario programmer whose NeoLogic TCP/IP tools are well regarded. "I think the OS/2 platform is more well-thought-out. You can see it was designed from the

ground up; it wasn't things stuck on from version to version—that's the real difference."

Ric Way, manager of voice response engineering for Applied Voice Technology of Kirkland, Washington, has a definite opinion as well. "I was surprised to see a review a couple of years ago that compared NT and OS/2 as communications platforms and rated NT superior. OS/2 is vastly superior."

Les Novell also has programmed communications applications for DOS and Windows. His San Jose, California-based Data Mirage Software markets LiveWire, a comm application originally written in text mode for the DOS environment that now, in version 3.0, runs under OS/2 as a set of Workplace Shell-enabled objects. "From my viewpoint," says Novell, "the comm API in OS/2 is far easier to use than either DOS or Windows. In Windows 3.1 the comm stuff was real trash—I've seen people work on it for six months trying to get simple comm stuff working. The OS/2 API is much simpler to use, has a much better interface, and can handle much faster data rates."

One of LiveWire's competitors is RhinoCom, a 32-bit native OS/2 communications application produced by Rhintek Computer Engineering, a Columbia, Maryland company with roots in terminal emulation software. Dave Mearns, a senior systems analyst and project leader, agrees about the speed issue. "Under Windows, we have all sorts of trouble," Mearns said. "Windows just doesn't seem to be able to handle interrupts at the speed we'd need it to. The real advantage as a programmer is that under OS/2 we have a device driver for the serial port, and there's a published spec as to how you interact with that serial port. You look it up, follow the rules, and it works. Because that serial device driver is what's interacting with the COM port, it can handle things like flow control in a very timely matter—a device driver running at the kernel level is not going to have timing problems. As far as I'm concerned, that's the way you want to design something."

Multitasking, Multithreading

Data and fax communications programs might have been created to justify the need for multitasking and multithreading. Both are crucial to the capability to carry on multiple applications and multiple processes simultaneously and independently. "OS/2 has been a legitimate multitasking preemptive OS for years," notes Matt Gray, president of Hilgraeve Inc., of Monroe, Michigan, a vendor of the HyperACCESS line of comm software for OS/2 and Windows. "That's important in communications, or in performing any real-time process. DOS is not at all multitasking.

Windows 3.1 and its predecessors are halfway from DOS to real multitasking—it's a time-slicing environment that on a round robin basis doles out resources to applications. Microsoft calls it 'cooperative multitasking,' which means if all the operations cooperate, multitasking will occur. But applications don't necessarily want to cooperate." Gray says OS/2 is unquestionably a better communications platform than 16-bit Windows. About Windows 95 he's not so sure—he develops for both environments, and his HyperTerminal is bundled with the new Microsoft OS.

OS/2 also fully supports multithreading—a fact comm developers are increasingly exploiting. Said Mearns, "Our program is very multithreaded. We have a whole system for when data is available at the COM port that processes it and puts in on the screen, totally independent of what else is going on. This is definitely a distinct advantage in doing these comm things when you've got things going on in both directions at the same time."

Novell agrees, and LiveWire is fully multithreaded. That's also now the case for the CompuServe Information Manager for OS/2, according to Associate Programmer David Nedrow. "We just recently started making use of multithreading in our product—it allows us to get our program to be much more responsive." CIM is available for Windows and the Macintosh as well, but he says the multithreading in OS/2 allows the user to do a lot of other things while on-line without a performance hit as is the case with the other OSs. Unfortunately, at the very time when OS/2 should be exploiting its strengths, the market has turned against it. CompuServe will no longer develop OS/2 versions of CIM. The market, for better or for worse, is slowly turning to Windows 95 after a brief but dramatic surge. Where OS/2 offers superior technology—object-oriented design, an integrating REXX language and a kernel designed from the start as a multitasking platform—it turns off developers because of its history of repeated marketing and public relations mishaps and mayhem.

Value of the GUI

A less obvious asset in working with OS/2 is the strength of the graphical interface. Software Corporation of America, a Stamford, Connecticut vendor of communication and connectivity tools, didn't try to develop graphical capabilities for its terminal emulation products in the DOS arena because of the lack of tools beyond terminal-defined character sets. "We are in the commu-

nications business, not the painting business," says Austin Donaghy, SCA's vice president and general manager. "Our expertise was strictly in how to talk between different machines. OS/2 gave us all the graphical calls we wanted to make to draw the pictures, all the fonts and scalable windows that we wanted to provide our users with a far more accurate emulation of a high end terminal. Without the kind of system that OS/2 is, we would not be doing that."

SCA VP of Sales and Marketing Dave Feldstein adds another argument for OS/2's use to support communications applica-

the multithreading in OS/2 allows the user to do a lot of other things while on-line without a performance hit

tions: Windows products up through 3.1 were essentially "very pretty DOS products," he says, subject both to failures and to an inability to determine the problem once a failure had occurred. "In Windows environments up to 3.1, failure of any piece of software caused havoc," Feldstein said. "Failure in an OS/2 system tends to affect only the software that has made the error." Pete Norloff agrees about the reliability of OS/2—it keeps his BBS up and running. "You want your system to start up and keep going forever, so reliability is critically important."

The real future of communications support is object oriented. As the economics of the marketplace dictate a faster and less costly application development process, easier customized integration of modular products from different vendors, and a far less complex process of cross-platform porting, the object model represented by SOM (the System Object Model) and OpenDoc and on the other side of the aisle by Microsoft's OLE2 will increase rapidly in importance.

Scott Hebner, the manager of OpenDoc market development for IBM's Software Development Operations, says the impact of object orientation on communications applications will be profound. "You don't have to write any columniations code at all—just have one object invoke another object. So productivity is greatly addressed. Also, when you build an application based on distributed objects, you don't get tied to middleware—it doesn't matter what the transport is for the network. So from a communications perspective, OpenDoc and SOM represent a

SPECIAL REPORT

very powerful model for building client-server applications."

Steven Gutz of NeoLogic says he and his colleagues are looking forward to OpenDoc and building object oriented communications applications. "That's where we're headed," Gutz said. Rhintek's Dave Mearns confirms observer reports that RhinoCom is already structured as an object-based communications application. "We have programmed Workplace objects that ship with our product that make communications a much more object oriented experience. Instead of starting the program and saying, 'Which bulletin board will I dial into?', you say, 'I'm going to connect to this one,' and just click on the icon for that object."

Brad Wardell of StarDock Systems has gotten a fair amount of ink lately for his OS/2 development efforts, particularly Object Desktop. Not surprisingly, Wardell says he has a high opinion of the operating system. "It's real good already with its multitasking, multithreaded architecture. It doesn't get much better than OS/2 for comm applications, since OS/2 is the only PC platform with widespread support for OpenDoc. This is frighteningly fantastic stuff."

Says John Soyring, IBM's director of technical projects within Personal Software Products, "Eventually what I view computing to be is nothing but a sea of objects that are connective to provide utility to users. Those objects may actually be running on a variety of systems in a network and it shouldn't matter to me."

At last fall's Network+Interop show, IBM, along with Sun, Hewlett-Packard and other vendors, demonstrated implementations of object technology interoperating on multiple platforms connected via TCP/IP sockets and DCE remote procedure calls—a glimpse into a future of distributed objects.

Where is it now, Where is it headed?

OS/2 obviously has laid strong foundations for communications support—just witness the breadth of serial communications software available. Yet the future of serial communications is changing rapidly with the dramatic rise of Web-based operations—a point not lost on Peter Norloff, whose Shareware BBS can be accessed either through direct dial up or the Web (and commercial ventures such as Indelible Blue and OS/2 Express have created sites, too). We've also taken note of the rise in Telnet capabilities of traditional terminal emulation software such as HyperACCESS for OS/2. Even if your current communications software lacks Telnet support, utilities such as Raymond Gwinn's VMODEM (included in the popular SIO serial device driver software) retrofit modem-based applications to Telnet operation.

The meteoric rise of the Internet was a future accurately pre-

dicted by IBM and tapped by its inclusion of the Internet Access Kit. That early leap has come with a price, however, in reduced incentives for third-party vendors to port their own applications. Netscape, for example, has no plans to port its dominant Netscape Navigator to OS/2 despite its cross-platform presence on Macintosh, UNIX and every flavor of Windows. Only in the E-mail arena, where UltiMail Lite forms the weak link in the IAK, have third-party products such as BMT's PMMail and Innoval's Post Road Mailer found a niche.

Yet OS/2's future as a communications platform is less limited by its software than by the hardware. As promising as connectivity looks, the bandwidth of most users' telephone lines remains a limiting factor. If you're a large corporate site with T1 or better access you'll have a little time to let the rest of the world catch up. But if you're stuck with 28.8K dial up or 56K leased lines you may soon be aiming for a 128K dual channel ISDN link. This promises to be the next big step, although ISDN is not yet completely deployed (for example, the area around *OS/2 Professional's* Minneapolis office will not have coverage until later this quarter).

The desktop speed wars are coming to an end. The next big leaps must come in the technology of connectivity. OS/2's engines are up to the task—its users simply need to find an entrance to the express lane among the tangled interchanges of the information superhighway.

Overall, OS/2 provides an effective, efficient communications package in a box called Warp. No add-ons required (but available should you prefer something else). Single click Internet access through the IBM Global Network with an option to connect to your own service (with a few more configuration headaches). An object-oriented base that will not be matched by NT—the only other real contender for the corporate network crown—for at least another year (maybe two). Most of all, Warp provides a solid base for communicating while you work. Gerstner's teams have developed a sound technological base for his vision of network-centric computing. However, he's dealing with an organization that has traditionally been too caught up in internal territorial battles to keep pace with market realities. If you need to communicate today, OS/2 continues to offer superior abilities. But the question remains, will IBM figure out how to market object technology in an inter-networked world? ♦

Alan S. Kay, formerly executive editor of OS/2 Professional and Corporate Computing, covers business technology from Washington, D.C. and San Francisco. He can be reached at (202) 232-4909 or ask@well.com.

warp

BY STEVE MASTRIANNI

I don't know about you, but I'm tired of constantly untangling that mess of cables that stick out the back of my computer. And no matter how I lay out my office, there's always one cable that's shorter than it should be. I'd love to be able to get rid of that rat's nest, wouldn't you?

I also spend a lot of time in airports or on airplanes, so my notebook is an essential piece of equipment. While I'm traveling I work on programs, documents and other files such as databases and presentations. Making sure the latest versions of all those files are updated on my office machine can be tedious and prone to error. With infrared, however, I can now set my notebook down in front of my office machine and have the files updated without fighting with all of those cables.

The use of infrared is hardly new. It has been used for all those incompatible TV and VCR remotes for us couch potatoes too lazy to get up to change the channel or adjust the bass. What sets computer infrared apart is that the communications link must be error free and capable of handling momentary (or even extended) interruptions without losing or otherwise corrupting the data. If the channel on your TV doesn't flip when you press the channel selector on the remote, you just re-aim it and try again. If this happened while you were sending or receiving a file, the results would be disastrous.

Infrared communication sends data using a small transceiver that emits pulses of light in the invisible 800-900nm wavelength. The pulses are quite small—about 50 nanoseconds in length. The current directional transceivers must be placed at no greater than 30 degrees angular difference, in line of sight with a distance of one meter or less. Power consumption is low—16mw nominal for the receiver and 120mw nominal for the transmitter—making them suitable for battery-operated notebook operation.

IBM currently installs these infrared devices in its high-end Thinkpad notebooks. The 755CE, 755CD and 755CX have front and rear-mounted transceivers that can transfer data at up to 1.15Mbps, while the 701C can transfer data at up to 115,200 baud. Hewlett Packard has announced the HP-5P printer, which supports speeds of up to 115,200 baud and is Infrared Data Association (IrDA) compliant.

goes

Future versions of OS/2 will be shipped with infrared support as a standard part of the package. Infrared support is being added for communications, NetBIOS, TCP/IP, printing and remote file systems. IBM is expected to supply infrared applications for OS/2. In the meantime, infrared device drivers for OS/2 are available on the PC BBS.

Communications from 9,600 to 115,000 baud are accomplished using an asynchronous mode. In this mode, the infrared device presents itself to the system as just another serial port with a 16,550-compatible buffered UART interface. At high speed—1,115,200 baud—a synchronous mode is used. The synchronous mode allows large packets of data to be sent with very little CPU loading. Data integrity is verified by a synchronous communications controller which verifies packet structure and CRC. The communications controller generates an interrupt only after each packet, freeing up the CPU to run other threads. In either the synchronous or asynchronous mode, the low-level protocol follows the IrDA specifications for Link Management Protocol and Serial Infrared Link Access Protocol. More detailed information regarding these protocols and specifications can be obtained by contacting the IrDA (PO Box 3883, Walnut Creek, CA 94598).

To make it easier for programs to exploit Warp's infrared capabilities, IBM will release a DLL containing approximately 25 infrared APIs. Applications that wish to use infrared need only call the infrared APIs; no knowledge of the underlying infrared device is required. The documentation for these APIs will be released in a future version of the Developer Connection Device Driver Sourcekit and Developer Connection CD-ROM.

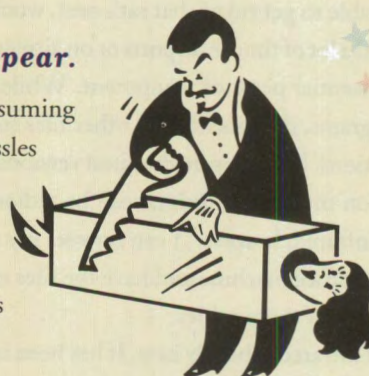
Steve Mastrianni is the president of Personal Systems, Inc., a Canton, Connecticut consulting firm specializing in device drivers and real-time applications for OS/2 and Windows NT. He can be reached on CompuServe at 71501,1652.

wireless

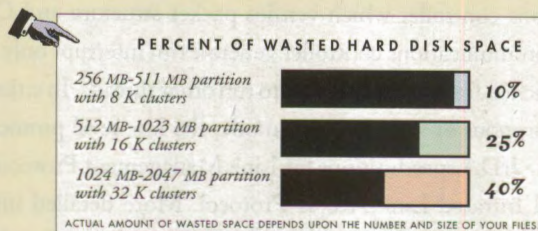
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Status Quo *with* UniMaint

If you run OS/2, you need UniMaint for powerful system maintenance.

BY GEOFFREY HOLLANDER

Advanced operating systems like Windows and OS/2 centralize system information so that pooled resources can be universally allocated. With the advent of Windows came a standard initialization file approach. The ubiquitous Windows WIN.INI and SYSTEM.INI files contain this information in standard ASCII text format—Windows and program data in the former, system and driver information in the latter.

There are disadvantages with an ASCII format, however. Most of the data in .INI files could be stored more efficiently and processed more quickly in binary format. Windows bridges this performance gap with PIFs (Program Information Files) that provide additional information—in binary format—to run individual programs. OS/2 resolved these conflicting goals through binary .INI files (OS2.INI for user information and OS2SYS.INI for system information) that also provide data similar to Windows PIFs. Moreover, OS/2 attempts to add a new level of reliability by maintaining the files at the operating system level to ensure that all entries are written correctly. But this method of managing your system can create other problems.

For one thing, there is no practical way for a user to determine what's in those files. No application, including OS/2 itself, has a way of removing obsolete entries from the .INI files. Thus as you add, change or upgrade your applications, these files get bigger and your system can become sluggish. When there's enough baggage, strange things can occur: windows open slowly, memory lockup and other general weirdness. Secondly, .INI files are always open, so there is no way to make adequate backups except during the system boot process. Unless you remembered to turn on system archiving, if your .INI files become corrupted—or just distorted, you have several unappealing choices: reinstall OS/2 or boot to a command line session and rebuild them with MAKE.INI.

SofTouch Systems offers a more convenient solution in its UniMaint System Utilities pack—one of the most practical and

useful tool sets an OS/2 user can own. The assortment revolves around IniMaint. In addition to providing a convenient editor for directly changing your .INI files, this utility can run a series of tests to isolate and resolve obsolete references to files, paths, old PM_ProgramList entries, unused printer entries, missing object location entries, inaccurate directory and file handles, etc. The utility is typically run first in "Reporting Mode," which finds any .INI problems and lists them for your review. Any or all of the suggested actions may be taken, or you can let IniMaint handle the whole process automatically.

The MultiMaint and WPS utilities provide a series of choices for backing up your Desktop and .INI files. Several archiving options are available: make a full or supplemental backup, choose to backup your Desktop, .INI files or both, pick the default directories in which to store your backup files and how many backup generations you wish to keep (from 1-100; 10 is the default).

Using the WPS utility, a portable backup can be created on floppies. Using a portable backup, you can easily transfer either your customized Desktop, .INI files or both to another system. You can now reproduce the same, familiar configurations on other work machines, home systems, portables, etc.

UniMaint also includes Uninstall, a utility for removing OS/2 applications. Uninstall takes out all program components including executable files, application directories, DLLs, OS2.INI entries and any associated help or information files. The fully automated process is initiated by simply dragging and dropping a WPS program object or .EXE file onto the Uninstall Dialog box. Incidentally, though undocumented in this release, Uninstall will also remove Windows (WIN-OS/2) applications as well. Currently, it won't remove references from WIN.INI. SofTouch says that will change in the next release, where Uninstall should work seamlessly with both OS/2 and Windows cleanup.

For new or inexperienced users, SofTouch has included

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UniSafe, which allows you to enact any of the UniMaint sequences without actually changing anything permanently. This gives you a chance to get comfortable with the structure and power of this program.

For power users, developers, MIS and IS users, UniMaint doesn't hold back. While it's likely many will use these tools in their automatic modes for basic system maintenance, every utility has a number of possible settings you can save as customized defaults or implement on the fly. Each utility has several tools which, while called upon during automatic processing, can be used precisely and selectively—if you know what you're doing.

This is where UniMaint needs some refinement. It can be difficult to tell what to use, *when* to use it and *why* you'd want to in the first place. You can, for example, take a file's extended attributes and view it, test it, save it, copy it, move it, split it, join it, delete it, compare it, etc. How to do these things is well documented, but when and why you would do these things are not. These areas of UniMaint are not for the novice or faint of heart. Some of these areas appear to still be under construction. You can test EAs, for example, but there is no practical way, as yet, to perform the same kind of repair operations for an invalid EA as for your .INI files. A more intuitive and centralized control panel and more documentation (in both the program and user manual) on the "whens" and "whys," organized by the user skill level required, would correct this.

Conversations with SofTouch indicate that they also are aware of these shortcomings and that the company will address them in the next full release. Even though some tweaking is in order, make no mistake about it: if you run OS/2 you need UniMaint. Within an hour of its installation I was congratulating myself on having made a very smart move. You will too. ♦

Geoffrey Hollander is the principal of MailPouch, a computer service bureau based in Lake Oswego, Oregon, that serves the direct mail marketing industry. He can be reached via CompuServe at 75202,3527.

AT A GLANCE:

UniMaint

SofTouch Systems, Inc.

1300 S. Meridian Avenue, Suite 600

Oklahoma City, Oklahoma 73108-1751

(405) 947-8080, fax (405) 947-8169

List Price: \$79.95

The Bottom Line on Finance Software

Check + and In Charge! offer even the most casual users a way to keep up with their finances.

BY KELLEY S. SHADDRICK

In the old days, knowing your financial position was as easy as counting the money you had in your pocket or under your mattress. Times have changed. With checking accounts, savings accounts, credit union accounts, insurance, stock and property, you may never know exactly where you stand. Enter the computer and two software packages to give you a hand: Computer Interface Corporation's Check+ V2.01 and Spitfire Software's In Charge! V1.01.

Check+

When you first install Check+, it provides a checking account that's ready to go. But if you're like most people, you will need to configure the available Bank, Credit Card, Cash, Investment, Property and Other accounts to get a complete picture of your finances. Each account type may be tailored with information, both general and account specific, such as starting check number, account balance and minimum balance. An advanced feature lets you group like accounts together, e.g. putting together all of your savings accounts under Savings. You may choose the account you use most as the default account, which will load automatically each time you start Check+.

Check+ does not tie you to one source or format for your computer-generated checks. It provides several predefined formats (which you may alter) and you may create User Defined formats by defining three areas: the check, the voucher and the stub. All you need to do is specify the X and Y coordinates of the various fields on the check and the number of characters that can print in the field. You also can set font types for each of the areas. The manual gives a good example, with a diagram of a check, marking all the areas and fields.

Flexible printing options and multiple accounts alone are not enough to keep your finances in order. To really gain control, you must summarize your income and expenses by category. Check+ includes some basic default categories, but you'll want to add your own. In addition to the typical type (expense or income) and category (such as House Payment or Taxes) you

may optionally designate a monthly budget amount. Categories are easy to add on the fly if you suddenly discover something new while entering data.

All transaction information may be entered from a basic entry window—only the fields will change. Processing a transaction is a four-step process: display the Browse Transactions Window, fill in the fields, allocate the transaction to categories and save or print the transaction. The process remains consistent whether you enter a check, deposit, withdrawal, interest, bank fees or adjustment. As you work, Check+ memorizes each Payee and automatically places them in a Payee list. After you've entered your transactions, you can view them as a list, search for specific transactions or browse them one at a time.

Check+ will assist your account management beyond simple database categorization. A unique feature lets you see the account balance not only in terms of checks written, but checks mailed (a handy feature if you like to prepare your bill payments in a batch ahead of the actual mailing date). Check+ also has a Payment Prompter function for recurring transactions such as your house payment.

One of the best features of computerized financial software is the process of reconciling an account. I've spent hours going through returned checks and bank statements to get everything to balance out. With Check+, you can balance all your accounts quickly and easily. To balance your bank account, simply take your bank statement, click on the Balance Statement button, mark items as cleared, enter interest and/or bank fees and process the results. Easy, quick and painless. You reconcile other accounts the same way, with the additional step of creating a check for those accounts that require payments.

Check+ has a variety of reports you can print, either in summary or detail, that will tell you all about your financial standing. You also can create your own reports with the Custom Report option. The eight steps to creating a custom report are detailed in the manual.

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DOT EXE

The last aspect of Check+ that warrants mention is its ability to import and export data to and from Quicken. There are some restrictions to this process, but for those of you who are using Quicken now and want to move to an OS/2 package, you can save a lot of re-keying with this feature. Moreover, this will benefit users of other utilities, such as the Panasonic CPA check printer (see July/August, 1995 Wizard of OS/2), that export data in QIF format.

In Charge!

In Charge! is built of multiple systems. Its account management system handles cash, checking, savings, credit union and other types of accounts. The budget system supports multiple year budgets. The billing system performs payable and receivable functions. In Charge! also includes property, securities, insurance and tax management systems. In short, every transaction tool you'd expect in a financial program seems to be here.

In Charge! supports 17 types of accounts, of which three are generic: current asset, credit liability and credit asset. These generic accounts can be tailored for special cases where the others won't work. Entering transactions for these accounts is quick and simple: select the transaction type, enter data into the other fields as needed by the transaction type, enter payee data and enter the amount of the transaction.

The bottom of the transaction screen displays four list boxes. If you are paying a bill, selecting the bill code from the list will update the transaction with data stored in the bill record. You can mark a transaction for tax purposes using a second list box that contains tax codes. The third list box contains budget codes to mark a transaction against a particular budget item. If you are transferring funds, the fourth list box contains account codes that will automatically create complimentary transactions.

Like Check+, In Charge! supports a broad range of check formats including nearly every existing continuous feed or laser check stock. Like any good financial program, reconciliation is both quick and simple—just a double mouse click away. If you plan to switch from another program to this native OS/2 application, In Charge! lets you migrate data from both Personal Finances/2 (version 4.03 or later) and from Quicken. Both migrations are described in detail in the manual. It also contains a section on backing up your data—a very important step that many neglect.

The In Charge! manual goes into depth on management of accounts, budgets, bills, property, securities, insurance and taxes

For more information circle #262

DOT EXE

and the program provides extensive reporting for each of these areas, as well as a query function for selecting specific items. In Charge! also provides useful general reports such as net worth, net worth history, cash flow analysis and cash flow planning. What I also would have appreciated, but couldn't find, is a report writer function to create your own specific reports.

The Bottom Line

Both of these programs were easy to use and install. Both have excellent manuals. Both software companies sent me a program update during the review process.

I liked In Charge!'s user interface more than Check+'s because I found it a bit easier to enter transactions. In Charge! also had a sample set of accounting books to help you familiarize yourself with the product. On the other hand, I preferred Check+'s report writer function, because it allowed me to create specific reports. Users also might feel that In Charge!'s extensive features are overkill for personal use.

If you'd like to try a native OS/2 financial program for personal use, try Check+. For business, try In Charge!. Either way, both are great programs and offer even the most casual user a way to keep up with his or her financial picture. ♦

Kelley Shaddrick is a Senior Technical Support Analyst at Nordic Track, Inc. He can be reached on CompuServe at 102503,360.

AT A GLANCE:

In Charge!

Spitfire Software

325 Breakwater Ridge

Atlanta, Georgia 30328

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**At presstime, Spitfire was shipping version 1.02 with more than 100 new enhancements*

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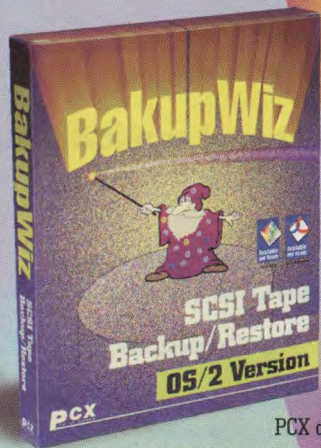
To learn more & download demo, call our information BBS

BBS Modem: 516-689-0289

Voice: 516-689-2457

For more information circle #315

February 1996 OS/2 Professional 25



BackupWiz™

OS/2 BackupWiz™ is the SCSI tape backup solution you have been looking for! Designed to exploit OS/2's multiple threading, BackupWiz gives you a quick and reliable method to completely back up your OS/2 system. HPFS and FAT file systems are supported and Extended Attributes, Long File Names, System files, and the Workplace Shell are backed up. You can even restore your entire OS/2 boot volume from tape! Ease of use is another of OS/2 BackupWiz's strong points. A simple, character oriented menu interface and command line operation are provided. OS/2 BackupWiz comes with support for most 1/4", 4mm (DAT), and 8mm tape devices. BackupWiz can also backup to other hard drives, file servers, minis/mainframes via TCP/IP, and removable drives including Bernoulli, Syquest, diskette, and magneto optical. There is even a version of OS/2 BackupWiz that supports many of the automatic tape changer mechanisms. Any SCSI host adapter that has an ADD driver can be used with OS/2 BackupWiz.

PCX also works hard to keep you satisfied after the sale with outstanding customer support. Being a small and aggressive company means that we can respond to your needs that much quicker. OS/2 BackupWiz is priced at \$149 (autochanger version \$399). PCX also has a competitive upgrade program where you can purchase OS/2 BackupWiz for just \$49 by sending in an eligible competing product. We offer a 30 day money back guarantee to protect you in case OS/2 BackupWiz does not work for you! Call our toll free number and order today!



PortaTape™

PortaTape™ is your complete portable tape backup solution for OS/2. Using high speed SCSI tape devices, the PortaTape line offers capacities ranging

from 250 megabytes to 10 gigabytes. Offering backup speeds from 6 to over 18 megabytes per minute when using a high speed, bidirectional printer port, units in the PortaTape series are priced from \$995.

Members of the PortaTape series utilize a range of SCSI tape drives including 1/4 inch, 4mm, and 8 mm mounted in low profile external enclosures. Connection to the host system is via the system's parallel printer port, which may be utilized concurrently with tape drive operation. A copy of OS/2 BackupWiz

is included with each PortaTape.

PCX also markets a complete line of standard SCSI tape backup units ranging in capacity from 250mB to over 10GB. Available in both internal and external models, these units are priced from \$550. For very large backup needs, PCX offers robotic tape loader mechanisms from 48GB to over 1 terabyte.

LinkWiz™ transfers files between OS/2 and/or DOS/Windows systems, over parallel cable, at 5 megabytes per minute – several times faster than any other file transfer utility.

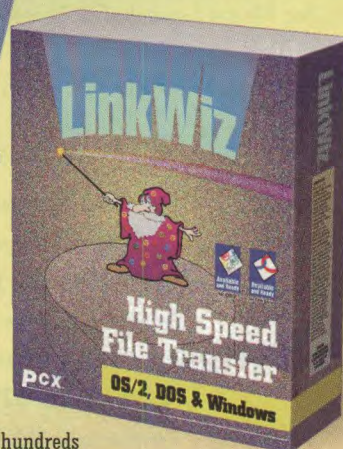
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Available through OS/2 EXPRESS



HANDS ON

Hard Drive Houdini

For constantly changing storage needs, Partition Magic lives up to its name.

BY STEVE MASTRIANNI

I've always wanted the ability to create, delete and resize partitions on my hard drive. In the past, this has meant backing up the entire system, repartitioning the system with FDISK, reformatting the new partitions, and then worst of all, attempting to restore the backup. This last step in particular always makes me anxious: what if the backup is defective, or the tape drive decides to quit just when you need it? Thus, I've always resisted changing my disk layouts and I find myself constantly hunting for more space in a particular partition. When I discovered that Partition Magic could grant my wish, minus the headache or fear, I just had to give it a spin.

The Guinea Pig

I have one of those slick IBM 701C Thinkpads that came preloaded with Warp. For some reason, IBM elects to ship the Thinkpads with a single partition on the 540MB drive. I like to keep at least one partition for Warp, however, and leave the rest of the drive for my applications and data. Repartitioning and reformatting the 540MB drive would mean reloading all the preloaded software and I just don't have time to do that. IBM ships the Thinkpads without disks for the preloaded software, so I would have to use the Diskette Factory to make dozens of diskettes. I decided that my 701C was a perfect candidate to test Partition Magic.

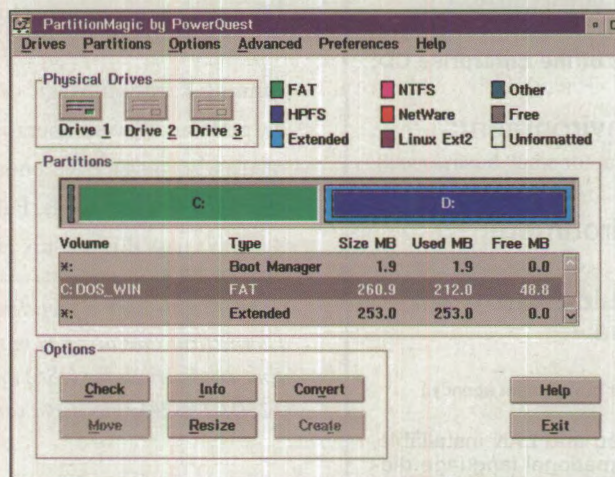
Up and Running

One of my acid tests for applications is to see if I can install and run them without reading anything, so I immediately tossed the manual on the floor and began. Partition Magic installed per-

fectly from the two high density diskettes and created a folder on the desktop. I then started the program and attempted to change the size of the C: partition. As I expected, I was greeted with the error: "Program is running from that partition." Attempting to change the size of the boot drive or modifying partition information while something is running on that partition would likely yield unpredictable results.

I grabbed the two OS/2 install disks and booted from floppies. (I also reached down and picked up the manual.) It stated that I could run Partition Magic by booting from the OS/2 install disks or from DOS, as long as the partition I was attempting to resize was not the same partition I was running Partition Magic from. I copied the PQMAGICT.EXE file onto the floppy, switched to the floppy drive and ran PQMAGICT. I requested a 55 megabyte partition after drive C:.

and the partition was created without any errors. I rebooted OS/2 and everything on my desktop came up perfectly.



The intuitive Partition Magic interface allows users to see, move and format partitions.

Working with the New Partition

I ran FDISK to create the logical partition, drive D:. After a quick reboot, I formatted the D: partition and copied a bunch of files onto D:. Again, everything worked perfectly. I then decided to convert this partition to HPFS. I suppose I could have done this with the FORMAT D:/FS:HPFS command, but it was easier with Partition Magic. (Once converted to HPFS, however, the partition cannot be converted back to FAT.) I rebooted again, but could not access the new HPFS drive. The statement in CONFIG.SYS to load the HPFS file system driver had been

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HANDS ON

commented out, so OS/2 did not load the correct driver. Edit-
ing CONFIG.SYS fixed the problem, but I felt that Partition
Magic should have scanned and parsed CONFIG.SYS to be sure
the HPFS statement was in CONFIG.SYS and that the
HPFS.IFS driver was in the \OS2 directory. Using OS/2's FOR-
MAT command, I converted the HPFS drive back to FAT (of
course destroying any files on the HPFS drive).

Next, I used FDISK to delete my new partition. Since I want-
ed to see if I could again resize my C: drive to its original size, I
booted from the OS/2 install disks and ran my copy of PQMAG-
ICT from floppy. I resized my C drive back up to its original size,
rebooted and checked out the results. Again, Partition Magic
performed perfectly, restoring my original partition size as if
nothing had ever happened on the drive.

A Fitting Name

I'm skeptical of any program that manipulates my files or data in
any way, so I have to admit that I was somewhat worried about
running Partition Magic on my systems. The program, howev-
er, performed every operation without any problems. For those
of us who never have enough disk space and have constantly
changing storage needs, Partition Magic lives up to its name.

Don't pass this one up. ♦

Steve Mastrianni is president of Personal Systems, Inc., a Canton,
Connecticut consulting firm specializing in device drivers and real-
time applications for OS/2 and Windows NT. He can be reached at
71501.1652@compuserve.com.

AT A GLANCE

Partition Magic

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List Price: \$69.95



MARKETLINE

Product News for the OS/2 User

SCOOPS

IBM's New Partner

IBM has formed a partnership with Blyth Software to bring OMNIS client/server application development and deployment tools to OS/2 by midyear.

Blyth, an international company that began as a supplier of database tools for the Macintosh, expanded into client/server tools systems over the last three years. Its OMNIS 7³ is a portable, scalable development environment for business-critical enterprise applications. Some of Blyth's customers include Toronto-based Northern Telecom, Harvard University and Disney.

"One reason I think IBM was attracted to us is because we have a strong base of ISVs and systems integrators," said Michael Minor, Blyth chairman and CEO. "IBM is interested in getting more applications written for OS/2. Also, 30 percent of our business today is from education and consulting, and [with IBM] we will conduct a series of workshops on client/server integration."

OMNIS 7³ ships in workgroup, server and enterprise editions. It has a cross-platform GUI application design with native API support for SQL-based and legacy data.

Its robust workbench environment encompasses version control, interactive debugging, object browsing and 3GL extensions. Its Change Management System (CMS) has special deployment and maintenance tools to keep distributed client applications automatically up to date.

Blyth expects beta copies of OMNIS 7³ for OS/2 by mid-February, and plans to make a formal product launch announcement at its International User Conference in June. Blyth also plans a PPC version of OMNIS 7³.

Minor said Blyth has targeted six major OS/2 and

client/server markets: financial services, aviation, scientific research universities, health care, telecommunications and pharmaceuticals. "We've found that the OS/2 market may not be wide, but it's certainly deep," he said. "We think it's a timely move. The entire market is moving toward the second phase of client/server adoption—many have failed. We're in a position to fight for the leadership in this market, and IBM will add the turbo chargers, we hope."

Blyth Software, Inc. is based in Foster City, CA.

New Products

Stop the presses

News services provide some of the best content-intensive sites on The Web and other independent providers like America Online, CompuServe and Prodigy. National newspapers, magazines and wire services have sites that are updated on the hour, every hour, giving the user unlimited access to news before they see it on the nightly news. But as the sites and sources grow, so does the

challenge of weeding through all the choices and finding exactly what you want, when you want it.

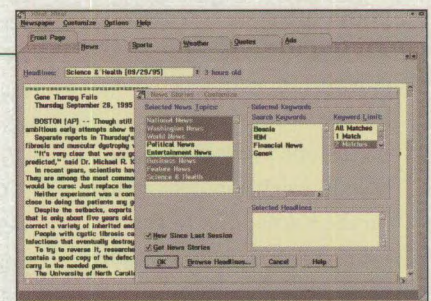
Enter Xtra!Xtra! a new software package from Sublime that produces a daily newspaper personalized to your tastes. You can access the day's top news stories, the Associated Press newswire and sports coverage (including a live scoreboard), weather forecasts from all 50 states and the world,

even stock quotes and classified ads.

Xtra!Xtra! lets the user pick sections or topics from a given set of choices. The software then retrieves the information from the sites and for mats it into easy to read copy.

You can download a sample from Sublime's CompuServe forum section. This allows you to see three papers before registering. Price after the free

papers is \$39.95. Sublime Software, 61 Quint Avenue, Suite 2, Boston, MA 02134. (617) 783-7104; fax (617) 789-4206; E-mail: 74777-3406@compuserve.com.



MARKETLINE



Hobbes archive

Walnut Creek has issued CDROM Hobbes, a two-disk archived package specifically with OS/2

users in mind.

The new disks contain: updates, patches and drivers for Warp 3.0 including Fix Pak 10; graphics programs such as 3-D charts, paint and JPEG/GIF/TIFF conversion programs; Doom, Attax, poker, Wizards of War and other games; the latest Corrective Service diskettes and patches for TCP/IP; spell checkers, TeX and fonts; and system utilities and Internet connectivity among others.

Hummer

Hummingbird Communications Ltd., a maker of PC to UNIX integration software, has released the Exceed for OS/2 version 3.0 family of products.

The Exceed for OS/2 X server seamlessly integrates with the OS/2 environment as a native application. It is X11R6 compliant, includes XTEST and XSYNC extensions and supports X11R6 front server, complete font transformation, scalable fonts and automatic font transformation. The product also features high-speed remote connectivity (through Exceed/ Xpress—also a standalone product), X Window development tools (in the Exceed/ XDK) and supports single and multiple window modes for host-based or local window managers.

Additional features of note include: local Motif-like window manager, Virtual Desktop, remote program starter (hRPS) and RLOGIN, sup-

port for startup of character-based, non-X applications and FTP file transfer.

Exceed for OS/2 version 3.0 is \$545. Exceed/Xpress is \$245; Exceed XDK for OS/2 is \$745. Hummingbird Communications Ltd., 480 San Antonio Road, Suite 100, Mountain View, CA 94040. (415) 917-7300; fax (415) 917-7310.

Tech talk

TechBridge Technology Corp. is shipping Visual TriO for Smalltalk v2.1, a visual 4GL application development tool, as an add-on to ParcPlace-Digitalk's Visual Smalltalk. The tool is available for OS/2 and Windows.

GUI 4GL visual development tools, characterized by smart GUI builders with data awareness and built-in query intelligence, simplify Smalltalk development, according to TechBridge. Visual TriO is packaged as a Smalltalk framework of more than 500 programming-smart classes, presented in a desktop

Also included are OS/2 programming tips, FAQ lists, IBM's Red Books and over 800 megabytes of virus scanned programs.

The company offers free technical support with every purchase. Walnut Creek CDROM, 4041 Pike Lane, Suite D, Concord, CA 94520. (800) 786-9907; fax (510) 674-0821; E-mail: orders@cdrom.com.

metaphor as a comprehensive, integrated tool suite.

Visual TriO for Smalltalk v2.1, OS/2 or Windows platform, costs \$270. Visual Smalltalk, available from ParcPlace-Digitalk, is a prerequisite.

TechBridge Technology Corp., 5001 Yonge Street, Suite 1301, Toronto, Ontario, Canada M2N6P6. (416) 222-8998, fax (416) 222-0168.

Space, the final frontier

Capstone Software, Inc., has just released SpaceMap version 1.2. The software summarizes disk space usage by directory, including space used by descendant directories. SpaceMap displays directories and files along with how much space each program is using. From there, the user can eliminate programs that are not being used, freeing up disk space.

Improvements over previous versions include an added Print Directory, Print File and Configure Printer pop-up windows that display

whenever the File/Print or File/Configure menu is chosen. Also added is a new facility to restrict moving, erasing or overlaying or any directories or subdirectories listed in OFFLIMIT.DAT files. This last function allows an administrator to protect directories from being accidentally lost by an inexperienced user.

Capstone Software, PO Box 416, Carmel, IN 46032; (317) 848-2451; (800) 500-2244; fax (702) 732-3847; E-mail: dgoran@cfs-rexx.com.

SAS

New from the SAS Institute is the Orlando release of its System for Application Development. Designed for PCs and UNIX systems, Orlando includes OCX support (an OLE custom control that enables easy mixing between SAS and third-party applications), intuitive drag and drop capabilities, composite sub-classing and new software classes.

With composite sub-classing, application developers create one single combination, or subclass, from multiple classes, and outline what an application can accomplish. The new software classes are Data Table and Data Form, which offer a way of integrating GUI-based data entry or browsing components into an application.

Orlando is licensed on an annual basis with fees determined by the number of work units supported and number of SAS System components

MARKETLINE

licensed. First-year license fees for base SAS software range from \$985 for one work unit to \$49,125 for 1,000 work units. Renewal rates are lower and discounts are available for degree-granting customers. Orlando supports OS/2, Windows products, Macintosh and other operating systems, along with IBM mainframes and compatibles, open VMS for VAX and AXP, UNIX workstations and minicomputers.

SAS Institute, Inc., SAS Campus Drive, Cary, NC

27513. (919) 677-8000, fax (919) 677-8123.

Wiz-o-mate

Wizcon 5, new from PC SOFT International, is an advanced development tool for PC-based Supervisory Control and Data Acquisition (SCADA) applications in an industry environment. It is designed to monitor, analyze, control and display various industrial process parameters with a focus on plant-wide automation, combining engineering, operations and manage-

ment resources.

Wizcon runs as a native application in a 32-bit operating system and implements event-driven processing, taking advantage of multitasked and multithreaded architecture. PC SOFT bills it as a highly reliable application that never loses data. Wizcon can record alerts and historical data with millisecond time stamp resolution and can simultaneously sample thousands of I/O points from up to 16 networks of PLCs. Its open, scalable architecture allows

integration with common commercial applications and database systems, spreadsheets and customized programs. According to PC SOFT, Wizcon's performance should be comparable to that of Distributed Control Systems (DCSs) and minicomputer systems. Price ranges from \$950-\$11,000.

PC SOFT International, Inc., 20 Park Plaza, Suite 483, Boston, MA 02116. (617) 423-7576, fax (617) 426-9236.

News

Spiked

Lotus and IBM are due to release a server package, code-named Spike, that bundles InterNotes Web Publisher (previously a standalone package) with IBM's secure Web server software and Lotus Notes. The package will serve as a precursor to a fully integrated Web Notes server, expected on all standard Notes server platforms by midyear.

Drew Clark, IBM manager of Internet and Web Software Solutions, said the joint offering will revolutionize Web publishing. "Anyone who keeps any kind of complex page will realize this is what they've been waiting for," he said. "It will be the most value-added package on the marketplace today. The Web

has lacked a provision to share information. This will combine the powerful and extensive reach of the Internet with the teamwork of Notes."

With Spike, Clark said, it's possible to publish directly from a Notes database to the Web Server. Documents are automatically generated into HTML format, making it unnecessary to keep dual sets. "It's much more than a Web editor," Clark said. "You're managing the content of the document, and it allows you to maintain control and security throughout the entire process."

The various packages also may contain DB2 database Web gateways, which at presstime were available as free downloads for OS/2 and AIX from IBM's software home

page (the CICS versions were still in beta). "At least the DB2 gateway is included in all of IBM's server offerings," Clark said. "As much as Lotus is a partner in these things, I'd assume it would come along [in Spike], too."

They're open

More than 1,000 people signed up for membership in Club OpenDoc during its first six weeks of existence, and another 4,000 are expected to sign on by midyear, said Scott Hebner, IBM manager of OpenDoc market development.

"So far we're overwhelmed with its success," Hebner said. "Around November I'd have said 1,000 [by midyear], and we've already surpassed that." Hebner said the 1,000+ mem-

bers, representing about 600 companies, broke down roughly as 80 percent developers, 20 percent consultants and five percent end users. "About 50 percent (of those) are OS/2-based as far as their interests, which is good news," Hebner said. He added that IBM is particularly encouraged by the numbers given its minimal marketing effort to date.

IBM set up Club OpenDoc, a "developer community" on the Web containing sample code, shareware and communication forums, in mid-November 1995. Hebner said the club grew out of demand for technical support and sample code for the distributed, cross-platform component software. IBM released the OpenDoc toolkit

MARKETLINE

for Warp Version 3.0 in December, and another toolkit mid-January on DevCon 9. The newest version of OS/2, scheduled for a midyear release, will support OpenDoc runtime; IBM also took on development of OpenDoc versions of Windows NT and Windows 95 from Novell.

At presstime, the Planetarium, an on-line catalog of software services and books, was just getting on its feet and chat groups were still in the works. IBM also is promoting a developers' contest for the most innovative and functional use of OpenDoc. First prize will be a Thinkpad. Winners will be announced at Object-World Boston in the spring. Club OpenDoc is at

<http://www.software.ibm.com/clubopendoc>.

To purchase finished OpenDoc products, visit the Reusable Software Component Market at <http://components.software.net>. The site is run by CyberSource Corp., and sponsored by IBM.

Prying eyes

With online companies communicating and transferring files at such a rapid pace, there is an increasing need to protect that information from prying eyes positioned along the information highway. With the release of carrick [sic], developed by Seattle-based Azalea Software, those companies now have a new line of defense.

The Windows-based

encryption tool works as both a standalone application or from within any Windows application that can access a DLL, including most popular word processors, databases and spreadsheets. The software package utilizes the new Blowfish algorithm. Price is \$159 for a single user and \$199 for a two-copy bundle. Azalea Software, Inc., PO Box 16745, Seattle, WA 98116. (800) ENCRYPT; fax (206) 937-5919; email carrick@azalea.com.

Desktop defense

Desktop Observatory 4.0 is a security feature designed to protect the Workplace Shell and OS/2 operating systems. Advanced security features enable administrators to limit

the desktop pop-up to Help and Shutdown and to restrict groups of users to specific files. The Security Daemon provides audit control and reporting functions and can inhibit access to specified parts of the Internet. Other features include the ability to standardize any group of workstations or an entire enterprise on one desktop. Small 20K average configuration files make updating fast and settings can be applied to objects so they can't be copied, deleted, moved or renamed. Price is \$179. Pinnacle Technology, 321 West Jefferson, PO Box 128, Kirkland, IN 46050. (800) 525-1650; fax (317) 279-8037; email info@pinna-cletech.com. ♦

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... BUNDLES ...

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Conner Tape drives bring 4 GB compressed backup capacity to OS/2 in an economical mini-cartridge format. Sporting throughputs comparable to DAT and 8mm using the bundled Back Again/2 software, you will find this bundle to be the hottest backup solution for your desktop.

SCSI Internal

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Deluxe American Heritage Dictionary, Roget's II Electronic Thesaurus, and the concise Columbia Electronic Encyclopedia. SimCity Classic for OS/2 is thrown in for free!

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MSR \$199.00

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Computer Data Strategies

A graphical 32-bit backup program, supports backup to LANs, SCSI tape and other removable media. Includes compression, backup scheduling and command line utilities for complete disaster recovery. 3.5 disk.

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Perfect solution for backup to floppy disk, magneto optical and LANs. Includes drag-and-drop support, scheduling and command line utilities so you can completely restore your OS/2 partition. Back Again/2 3.0 personal edition has all the features of our Professional edition without the support for SCSI tape drives. 3.5 disk.

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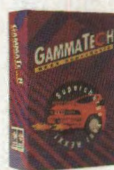
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Working with VisualAge C++ Visual Builder

BY CHRISTINA LAU

In last month's Code Cache, we explored the functions of the Data Access Builder—a tool for creating classes that access relational databases—found in IBM's VisualAge C++ 3.0. This month we'll look at the Visual Builder—a tool that makes visual programming come true. At the heart of the Visual Builder is the Composition Editor. You use the Composition Editor to lay out the visual appearance of your application by simply selecting parts such as buttons, list boxes, containers, menus, notebooks, etc., from the Parts Palette and dropping them onto your application window.

As you add parts to the Composition Editor, you define the application's behavior by making connections between the parts. After placing all of the parts and making all of the connections, you will generate the C++ source code (based on the IBM Open Class Library). Finally, you compile the generated code and link it with the rest of your application.

Construction from Parts

In the Visual Builder a part is a C++ class with a well-defined interface. The interface is composed of three features: attributes, actions and events. Attributes represent the properties of a part: for example, a customer part can have a name and an address attribute. Actions represent the operations that a part can perform. Thus, the customer part might have an "add" action that can be triggered by a connection from other parts. Lastly, events represent the notification from a part such as a push button that sends a click event when the button is clicked.

To define how parts interact with each other, you make connections between the parts. An Event-to-Action connection starts an action when the event occurs. An Attribute-to-Attribute connection links two data values together so that when one changes, the other also changes. You also can connect an attribute or event

LISTING 1

(UNIVDB PART)

```
#include <idsmsql.hpp>
#include <idscon.hpp>
#include <iuserenv.hpp>
#include <istdntfy.hpp>

class _Export UnivDb : public IStandardNotifier {
public:
    UnivDb();
    UnivDb(const UnivDb& partCopy);
    connect();
    disconnect();
    ~UnivDb();

private:
    IDatastoreMgrSQL      dsm;
    IUserEnvironment      ue;
    IDatastoreConnection  dsConn;
};

UnivDb::UnivDb() : IStandardNotifier()
{
    enableNotification();
}

UnivDb::dbConnect()
{
    dsConn.setUe(&ue);

    // get a datastore ID and stored it in dstoreId
    IString dstoreId(dsm.GetDatastoreId("DB2_OS2",
        "UNIV", ""));

    // establish the connection to the datastore
    dsm.connect(dsConn, dstoreId,
        "USERID", "PASSWORD");
}

UnivDb::UnivDb(const UnivDb& partCopy)
    : IStandardNotifier (partCopy)
{
    enableNotification ();
}

UnivDb::~UnivDb()
```


CODE CACHE

```
{
    dbDisconnect();
}
UnivDb::dbDisconnect()
{
    // disconnect the connection
    dsm.disconnect(dsConn);
}
```

LISTING 2

(UNIVDB PART INFORMATION FILE)

```
//VBBeginPartInfo: UnivDb, "UnivDb"
//VBParent: IStandardNotifier
//VBIncludes: <univdb.hpp> _UNIVDB_
//VBPartDataFile: 'univdb.vbb'
//VBComposerInfo: nonvisual
//VBAction: connect, "", void, void connect()
//VBAction: disconnect, "", void, void disconnect()
//VBEvent: ready, "ready", readyId
//VBEndPartInfo: UnivDb
```

to your custom logic so that your customized code will run when the value of the attribute changes or when the event happens. A complete connection is indicated by a solid line on the Composition Editor.

You can make several connections from the same part; the order you make them in determines the order in which the code is run. You can also pass parameters to a connection. If a connection expects a parameter, it will appear as a dashed line, indicating that you must provide a parameter value. When you provide the parameter value by connecting to an attribute, an action or custom logic, the dashed line will become a solid line.

Creating a GUI for the Database Application

In January's Code Cache, we built a database application by using the Data Access Builder to generate the data access code. We also wrote a non-GUI client application to use the generated code. Now we will

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CODE CACHE

examine using the Visual Builder to create a graphical user interface for your database application. Figure 1 shows what the application looks like when it is finished. When you start the application, a connection is made to the "UNIV" database. The **Refresh** button retrieves all the rows from the Course table and displays them in the container. The **Add** button adds a new course to the **Course** table.

First, we create a nonvisual part, **UnivDb**, to connect to the "UNIV" database. The source code for this part is given in Listing 1.

Part Information File

When you generate the data access code for the **Course** table,

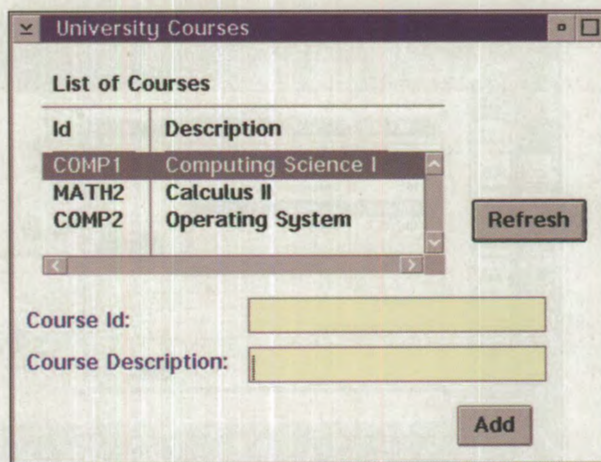


Figure 1. A finished database application.

coursev.vbe is one of the generated files. This file is called a Part Information File. The Part Information File describes the interface information that Visual Builder needs, and is used for importing the part into the Visual Builder.

To import the **UnivDb** part into the Visual Builder, we will create a **univdb.vbe** file, which is shown in Listing 2.

Importing Parts

To import the parts into the Visual Builder, select **File->Import Part Information**. This will bring up a file dialog where you can select the .vbe files. Once you have imported the parts, you will notice that **Course**, **CourseManager** and **UnivDb** are displayed under the Nonvisual Parts list box.

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Designing the Application

Now we must create a new visual part for the database application. Select **Part->New** to create this new part. This will bring up the Part-New window where you can enter the name of your class. We will call it **CourseView**. By default, the base class is **IFrameWindow**. We will use this base class for our application. When you select Open, the Visual Builder will bring up the Composition Editor. The IFrameWindow* part is displayed as your application window.

Next you will place the visual parts that make up the front end of our application onto the application window. Select the static text, entry field, container and push buttons from the Parts

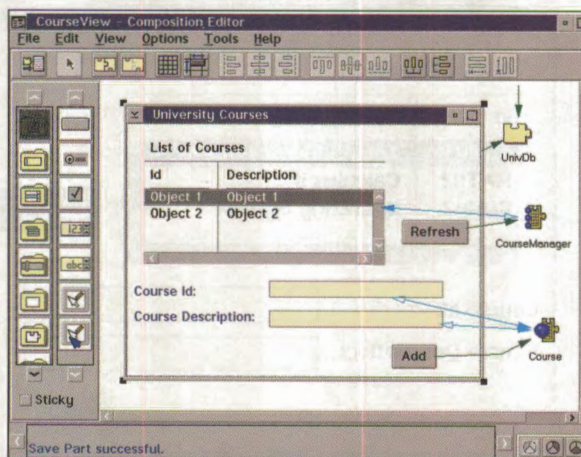


Figure 2. The Composition Editor's arrow styles correspond to the different types of connections between parts.

Palette on the left-hand side of the Composition Editor and drop them onto the application window. The Composition Editor lets you resize and align the parts as well as change the static text. You should align the parts to look like the application in Figure 1.

Finally, add the nonvisual parts **Course**, **CourseManager** and **UnivDb** onto the free-form surface outside the **IFrameWindow** part. Select **Options->Add part**

to add the Course, CourseManager and UnivDb part.

Making the Connections

Once the parts are in place, we need to make the connections so that the application can add a course and display the list of courses.

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es as a result of a database query. Figure 2 shows the Composition Editor with all the required connections.

Two Attribute-to-Attribute connections were made between the “courseId” and the “description” attributes of the Course part and the text attribute of the two entry fields. An Event-to-Action connection is made between the Add push button and the “add” action of the Course part so that a course will be added when the Add button is clicked.

An Event-to-Action connection is made between the Refresh push button and the “refresh” action of the CourseManager part. This has the effect of retrieving all the courses from the Course table when the Refresh button is clicked. The result of the query is displayed in the container by connecting the items attribute in the CourseManager part to the items attribute in the container part.

The “dbConnect” action of the UnivDb part is connected to the “ready” event of CourseView. This has the effect of making the “UNIV” database connection when the application starts. The “dbDisconnect” action of the UnivDb part is connected to the

“close” event of CourseView. This has the effect of disconnecting from the database when the application closes.

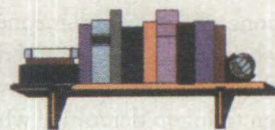
Once all the connections are made, you can generate the source code, compile it and then run the application.

Summary

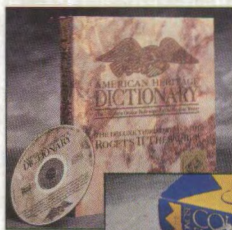
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Christina Lau is the author of the book Object-Oriented Programming Using SOM and DSOM (John Wiley and Sons, 1994). She works in the Application Development area in the IBM SWS Toronto Laboratory. She can be reached at clau@torolab6.vnet.ibm.com.

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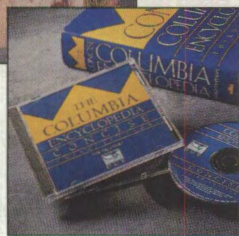


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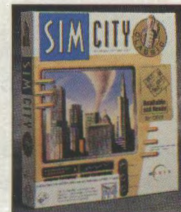
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Tips and Techniques for the OS/2 Professional

Compatibility Complex

You don't have to do hardware the hard way.

BY JIM WILLIS

Have hardware hang-ups got you down? Are you paralyzed by peripheral paranoia? One way to deal with the anxiety of installing new hardware is to schedule some quality couch time with your favorite therapist. Indeed, who among us OS/2 users wouldn't benefit from a soul-mining session or two with a cyber-Freudian asking: "Tell me about your motherboard?"

On the other hand, you could toss the Prozac and just go online to ease those OS/2 hardware blues. Even with the most challenging of hardware configurations, chances are someone has already been there, done it and documented their success or failure on line.

When trying to determine whether or not a certain PC is even worth attempting to Warp, you'll first want to check out IBM's OS/2 Hardware Compatibility Page. From this page, you'll find a list of 3,137 machines from 211 different manufactures that IBM has determined to be compatible with OS/2. While at presstime the page hadn't been updated since November, 1995, a PSP spokesperson said that the page will be regularly updated.

Check out IBM's Hardware Compatibility Page

- Point your browser to <http://www.austin.ibm.com/pspinfo/os2hw.html>.
- Click on OS/2 Compatible Systems.
- Choose a manufacturer to see if the

model you're interested in has been tested for compatibility with OS/2. Also, this OS/2 Hardware Compatibility Page provides a link that allows you to see if a device is compatible with OS/2. Covering everything from display adapters, disk and SCSI adapters, rodentia, and CD-ROMs to printers and LAN support, this page will help you determine the availability and location (OS/2 CD-ROM, manufacturer's BBS, etc.) of the device's driver.

Check out IBM's OS/2 Compatible Hardware Devices Page

- Point your browser to <http://www.austin.ibm.com/pspinfo/os2hw.html>.
- Scroll down to the type of device (e.g., CD-ROM, printer, etc.) you want to install.
- Click on the device type and choose the manufacturer and model type for detailed compatibility information.

Another good Web site for resolving compatibility problems is the Warp Pharmacy. This page is not maintained by IBM. As such it's no surprise that the information found here is deeper, more detailed and more accessible than that found on IBM's site. Like a 12-step program for computer junkies confronting their device-driver demons, the Warp Pharmacy uses the group-therapy technique. Knowledgeable OS/2 apothecaries from around the world have contributed a variety of "tonics" to cure whatever ails your machine.

Medicate your machine at the Warp Pharmacy

- Point your browser to <http://www.zeta.org.au/~jon/Warp-Pharmacy.html>.
- Select Hardware for a selection of tonics organized according to the affected hardware component.
- The Symptoms category may also be selected for a more generic exploration of a hardware compatibility problem.

While it hasn't been updated since Warp's release in 1994, the Warp Installation Notes Page is a helpful collection of various postings and questions from OS/2 newsgroups regarding installation of OS/2. If you haven't yet installed Warp and have questions about setting up partitions, or are having trouble installing Warp, this page may have what you are looking for.

Check out the Warp Installation Notes Page

- Point your browser to <http://www.zeta.org.au/~jon/mckftips.html>.
- Choose either to download the notes as an ASCII file or view it on line in hypertext format.

Enough information exists on-line to ease even the most debilitating case of peripheral paranoia. Just remember that

THE I.S. NOTEBOOK

it's a lot easier to find out whether a given hardware configuration will work with your setup before you go out shopping than discovering it won't when your floor is littered with empty boxes and dog-eared instruction manuals.

Tax Time Bonus Tip

- Point your browser to <http://www.ifi-rock.com/financial>
- Browse through the links to find a tax form site or information.

As tax time approaches, we've discovered the Web can be a great place to find and download forms and instructions during those after-work hours when federal offices are closed. It also saves a trip to the library, post office, or federal office building. You will also find a broader selection of forms than a most physical locations. Several states have downloadable tax forms, too. We will compile and update our links as tax season progresses—so visit our site and save yourself a least some aggravation. ♦

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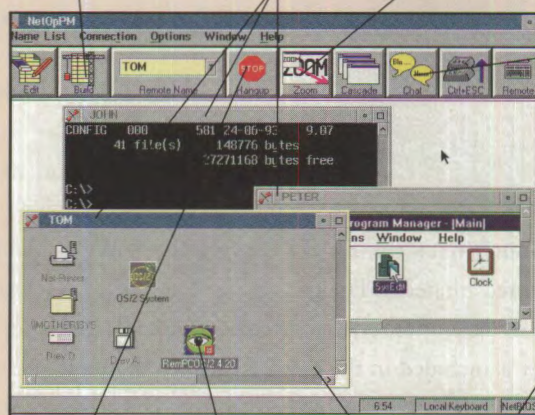
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Available through OS/2 EXPRESS
February 1996 OS/2 Professional 43

OS/2 Warp uncensored

By Peter G. Magid and Ira H. Schneider, foreword by Edwin Black, IDG Books, 798+pages, \$39.99 (Includes CD-ROM Productivity Pack, index and analytical table of contents.)

REVIEWED BY JERRY POURNELLE

The back cover of this hefty tome carries an endorsement (they're known as puffs in the trade) by *OS/2 Professional* Editor-in-Chief Edwin Black with which I heartily agree: "A must-have OS/2 Warp Book. In just five minutes I learned enough secrets to dramatically improve my skills."

If you have only one OS/2 book, it ought to be this one, even if you have to throw out the official IBM OS/2 documentation. The authors know what they're about: Peter Magid is the User Interface Design Lead for the OS/2 Workplace Shell. Ira Schneider is an Advisory Programmer on the Workplace Shell Development Team. Clearly they know how to use OS/2, and in this book they tell you how in clear language. There's a good index and a 17-page analytical table of contents, making this informative book very easy to use.

All of which raises two questions. First, if two IBM OS/2 designers can produce a book that's this good, why are the official OS/2 documents so unreadably lousy? And second, why the terminally cute title? Who "censored" OS/2 in the first place?

Perhaps the two questions are related. Perhaps what's censored is that IBM employees can write, but the IBM document editing and control system ensures that nothing readable and informative can emerge from it. In any event, this is the book that ought to have come out with OS/2 in the first place. Pity it didn't. On the other hand, this book could be improved with a little IBM stodginess.

Older history books used to have marginal notes such as dates

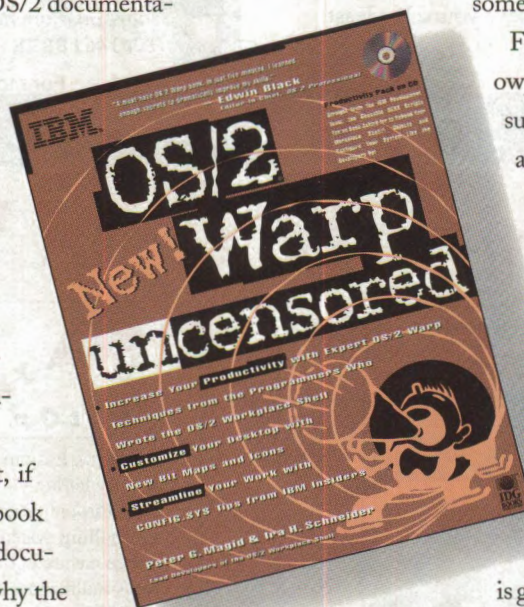
or little capsule running commentaries like "Caesar crosses the Rubicon." They made it easy to use the book for reference after you'd read it. There's a trend in computer books to use marginal marks too, but instead of notes, they use little icons and symbols. Notes require work and thought; it's much easier to slap an icon in the margin. Alas, the icons are less useful, and some of them are downright silly.

For example, "TIPS" are marked by a shadowy figure in trench coat and slouch hat—I suppose he's intended to resemble the IDG artificial personality Robert X. Cringely. Cringely, incidentally, began life as a snail adhering to the outside of an unopenable window. As a joke the name was put on the masthead. Then PR people began telephoning to say that Cringely had suggested they talk to the editor in chief.

Anyway, the TIPS are marked by this shadowy figure saying "Shhh" behind his hand, as if he

is giving you a secret. Why? The tips are use-

ful, but what's the secret? Similarly, there's an icon for "Uncensored" material. Here's a typical example of that material: "As a result of these changes, today more multimedia support than ever is included in the OS/2 Warp package. Over the last three years, many bugs have been fixed, installation has improved, and support for new audio and video devices is being added each week, commensurate with OS/2's growing popularity. The resulting OS/2 Multimedia platform is robust, tested, and 'ready for prime time!'" Only IBM could call this hype uncensored.



continued on page 46

FREQUENTLY ASKED QUESTIONS

IBM's Official OS/2 Warp FAQs by Michael Kaply and Timothy F. Sipples,
with Bradley D. Kliewer, IDG Books Worldwide, Inc.,
380 pages, FAQ Pack CD-ROM, \$29.99

REVIEWED BY DAVID BARNES

FAQs (Frequently Asked Questions) is a compilation of answers to common questions asked through online fora.

If you have a question, chances are that someone else has already asked it. That is the premise for *IBM's Official OS/2 Warp FAQs* by Michael Kaply and Timothy F. Sipples. This publication, brought to you by IDG Books (the folks that brought us the phenomenally successful "for Dummies" series), belongs in every box of OS/2 Warp that ships.

That said, let me tell you why I think so. When I first went online some years ago, I came across a document called OS/2 FAQs by a Timothy Sipples from the University of Chicago. It was an ASCII text file full of answers to OS/2 questions ranging from install tips to how to find a video driver. As I spent more time online, I found that these FAQs documents were common items on the Internet—an online repository of communal knowledge in ones and zeros. I regularly committed OS/2 FAQs to memory.

As time went by Sipples' FAQs were converted into .INF format (hypertext), which I kept on my system. After a presentation, when someone would come up and ask a question I couldn't answer, I would pull up the FAQs and search for an answer. As a result, I was once called a "walking encyclopedia" of OS/2 information. I ate it up.

Well, IBM got smart and hired Sipples from the University

of Chicago. In short time he met Michael Kaply from IBM's Boca Raton Labs and, in what I can only imagine was a dweeb orgy, the two decided to have their knowledge pooled. And bound. Throw in one Bradley Kliewer (editor of *OS/2 Professional*) for writing expertise and the results speak for themselves.

IBM's Official OS/2 Warp FAQs encompasses more

than 350 pages and includes a CD-ROM called The FAQPack. The FAQPack includes fixes for OS/2 Warp and the BonusPak, drivers, bitmaps and a few useful utilities.

Also useful are diskette images for installing OS/2 Warp from a 5 1/4-inch A: drive. The FAQPack also of course contains an install program, but if you're like me you will appreciate the decision to print a view of the CD-ROM directory structure in the appendix of the book.

The most attractive item on the FAQPack is a digital copy of the book! That's right, Sipples and Kaply are real users and, as such,

know users. Since Kaply wrote most of the help system for OS/2 Warp, it was natural for him to double the book in .INF (hypertext) format. To give you an idea of the level of detail he included, when the hypertext version of the book lists an Internet address, just click on the address and the message is sent to the Web Explorer and off you go. Cool.

OS/2 Warp FAQs is organized into five parts. The first part, The Basics, was at first a disappointment. It starts, like every OS/2

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BOOKSTAX

continued from page 44

I suppose what IBM would censor is that there ever were bugs and that installation could be improved. In fact, the TIPS are generally more useful than the Uncensored features, although here and there Uncensored marks an undocumented feature. For example, in the extensive chapter "Customizing the Workplace Shell" (which is itself just about worth the price of the book) you'll find the Uncensored icon next to this bit of text: "The Plug and Play for PCMCIA object is actually a Presentation Manager program; it is not a Workplace Shell object. In order to customize this object, you select its OPTIONS menu, then select either the CUSTOMIZE ... or REGISTER OBJECT... options." The text then explains what you can do under these options. It's all very useful information you are unlikely to have figured out from the IBM documentation, but "Uncensored?"

Here and there this icon also appears next to a paragraph describing a real OS/2 bug. Does this imply that IBM doesn't want you to know that the bug exists and thus "censors" that information? I hope not.

OS/2 Uncensored comes with a CD-ROM that contains a lot of "so what" bitmaps and icons. The really useful part of the CD-ROM is a collection of REXX programs. Many OS/2 users have never discovered just how powerful REXX can be. The best way to learn a programming language is to study working programs and fool around with them to see what your changes do. And the included programs are useful as illustrations of just what you can do with REXX.

One fact about OS/2 that very nearly is censored is that really bad applications can choke up the input channel so badly that you can neither close the app nor get back to the OS/2 Desktop even though you hit Ctrl-Esc and Alt-Esc for an hour. Watchcat, available from the Hobbes BBS, solves that problem, and is so useful that I wonder why IBM doesn't buy it and include it with OS/2. Alas, it's not included or even mentioned in this book.

Having said all that, let me repeat: despite its flaws and general cutesiness, this is about the best OS/2 book I know, and well worth the price to beginner and experienced user alike. Highly recommended. ♦

Jerry Pournelle can be reached at jerry@bix.com.

BOOKSTAX

continued from page 45

book, with explanations of preemptive multitasking and protect mode. Enough already, how many times do we have to hear this sales pitch! Leave that hype to those IBM sales hucksters. I want the facts!

Luckily it ended in a few pages and got down to business. The next thing I know I am reading the answer to "is there anything extra on the CD version of OS/2 Warp?" Now that's more like it. Those kinds of questions are hard to find answers for in the real world. And that's where this book shines. It answers the questions the person at your local computer store can't.

The whole book is indexed as questions, which makes it surprisingly easy to read. Sections two through four are Essential Features, Troubleshooting, The Extras (covering the Bonus Pack and the Internet Access Kit) and the Appendices. These chapters cover questions from "How do I install OS/2 Warp if I didn't get Windows diskettes with my PC?" to "What is the NOWHERE directory?" I might just be a geek, but this is interesting stuff. In my circle of PC friends, these bits of trivia earn you respect! (I know, I need to see more sunlight.)

The table of contents and the Index are excellent (which is why I gave the book such high marks). I especially like the appendix sections that give you information on how to find OS/2 resources online. A list of OS/2 Users Groups and contact information also is included.

As I looked for some negative things to say about the book to balance this review, I soon realized that if I had to look that hard, this really is a good book. IBM's Official OS/2 Warp FAQs should be in the hands of every person who sells OS/2 Warp, every person who supports Warp, and every geek like me who just wants to be a know it all.

Highly recommended. ♦

David Barnes is currently employed by Connecticut-based Right Source. Previously, he was the senior OS/2 product manager at IBM, a leading member of the OS/2 team. This is his first published article since leaving IBM.

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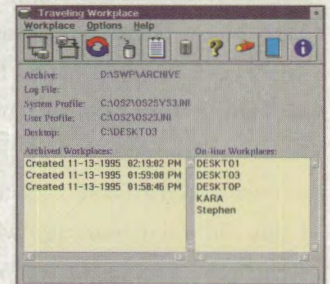
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Library: Add OS/2, Stat!

BY JERRY POURNELLE

IBM released the latest version of its voice recognition program at COMDEX. It's good—very good. Like the previous version, you spend a couple of hours training the system to understand your voice while you learn the program. After that you just talk. Of course you have to talk in a special way, with a hesitation between words. That takes getting used to, but it's not as hard as it sounds. Stenographers tell me most people use a somewhat different voice when they dictate to humans. Heaven knows a lot of great literary works have been created by dictation.

The IBM voice recognition program has a large general vocabulary, and there are add-on libraries for specialized fields like law and medicine. You also can add words of your own: in my case, character names for novels. Having spent a good part of my life learning to type, I don't, at the moment, need a dictation system. But I sure did a few years ago when my right hand was in a cast for three months as a result of a hiking accident. If you've got a lot of words to enter or transcribe and you can't or don't type fast, this is the program to have.

The previous version of IBM Voice Recognition ran only on OS/2, and I know at least three people who installed OS/2 because of that fact. The new version also runs on Windows 95 and NT.

I also have a copy of Emergency Room, a neat game published by IBM and "produced" by Dr. Ariella Lehrer, a cognitive psychologist. It's a good game, worth looking for. The outside package says it's a "DOS CD-ROM." The disk itself says it's a "Windows CD-ROM," which is misleading. The installation instructions apparently assume you're running Windows; they tell you to exit Windows and run from a DOS

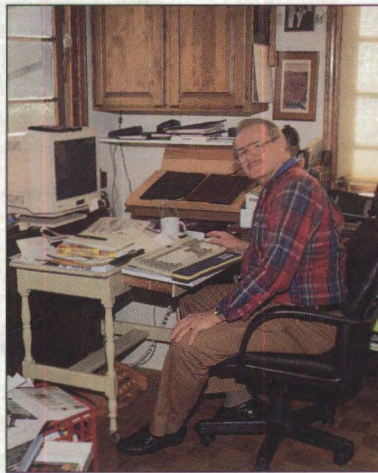
prompt. Attempts to run Emergency Room in Windows 95 fail: it won't even start in a DOS window or DOS full screen. It works fine if I exit to DOS.

The game package and instructions say nothing whatsoever about OS/2, but installation in a full screen DOS session under an OS/2 window produces an interesting result. You get the message that installation was successful. The game starts. The credits come up. There is good motion video of a med evac helicopter. The sound works. You come to the game proper, and it dies with the error message "not enough memory." No change in settings—at least none I can discover—fixes that.

Emergency Room is a neat program. It's brand new, just out; and it can't be made to run in Windows or OS/2. Fascinating. The weird part is that since the opening runs fine in an OS/2-DOS session, it couldn't have been all that hard to make the whole thing run in OS/2, but apparently no one tried. Although some of IBM's best master programmers have been breaking their hearts writing new OS/2 APTs, apparently the applications division of IBM simply doesn't care. So much for the home market, which Intel believes will account for more than 50 percent of the Pentium and P-6 machines sold in the next couple of years.

The good news is that we have Object Desktop, and it's great. It improves the OS/2 interface considerably and it's quite simple to install and use. Moreover, there are all kinds of new interfaces to allow DB2 to run with OS/2. Apparently someone at IBM cares enough to see to that; they haven't abandoned the corporate market yet. Of course Microsoft hasn't abandoned NT either.

And so it goes. ♦



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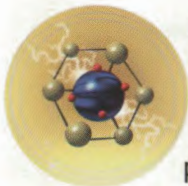
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